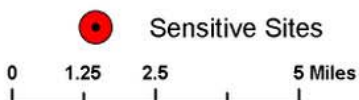
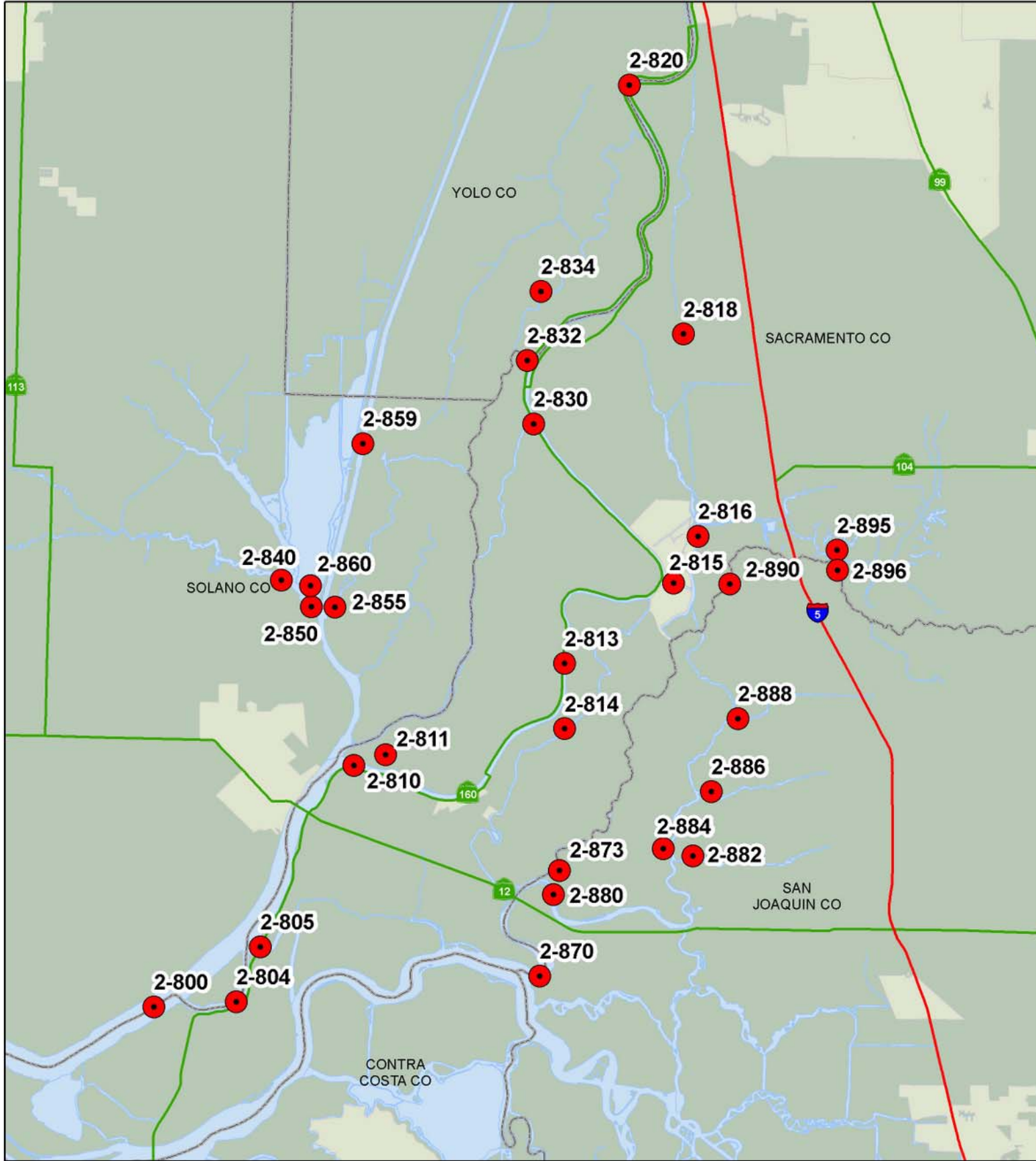


SF Geographic Response Area 8 - North Delta

Lower Sacramento and Lower Mokelumne Rivers to San Joaquin River

Environmentally Sensitive Sites



● Sensitive Sites

Section 9848 – GRA 8 North Delta

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GRA 8 Site Index/Response Actions

Site ID	Priority	Site Name	Assignment	Date/Time Required	Date/Time Completed
2-800		Sacramento River, Lower Reach			
2-804		Sacramento.R: Horseshoe Bend - Decker Island			
2-805		Threemile Slough West			
2-810		Sacramento.River, Lower Grand Island Reach			
2-811		Sacramento Anthicid Beetle Habitat			
2-813		Sacramento.River, Isleton-Walnut Grove Reach			
2-814		Georgiana Slough			
2-815		Delta Cross Channel / Lower Snodgrass Slough			
2-816		Snodgrass Slough Complex			
2-818		Stone Lake Complex			
2-820		Sacramento.R: Courtland - Sacramento Reach			
2-830		Steamboat Slough			
2-832		Sutter Slough			
2-834		Elk Slough			
2-840		Lindsey Slough			
2-850		Cache Slough			
2-855		Miner Slough			
2-859		Sacramento.River Deep Water Ship Channel			
2-860		Prospect Slough			
2-870		Mokelumne River Mouth			
2-873		North Mokelumne River			
2-880		South Mokelumne River			
2-882		Sycamore Slough			
2-884		Sycamore Island			
2-886		Hog Slough			
2-888		Beaver Slough			
2-890		Mokelumne River, New Hope Reach			
2-895		Cosumnes River Reserve			
2-896		Mokelumne River, Thornton Reach			

Summary of GRA 8 North Delta Response Resources by Site and Sub-Strategy

Site	Site Name													
sub-strategy	PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT													
	Harbor	Swamp	Other	Sorbant	Anchoring	Boom	Skiff	Skimmer	Special Equipment	(and notes)	deploy	Staff to		
	Boom	boom	boom/TYPE	boom	No	type of gear	boat	No	Type	No	and kinds	staff	tend	
2-800	<i>Sacramento River, Lower Reach</i>													
.1	-	Diversion to collection at favorable sites such as beaches or riprap to immobilize and prevent further spread.												
	3000		50 OS	100	8	8/50lb/danforth							15	
.2	-	Oil Recovery with shore side skimming (SSS)												
	0	0	0		0	0		0	0	4	portable	0		
2-804	<i>Sacramento River, Horseshoe Bend at Decker Island</i>													
.1	-	deflection-exclusion booming: keep oil in main Sacramento River channel and out of 3-mile Slough and Horseshoe Bend.												
	4800				14	70/50lb/anchors + Chain + Line	4	2					16	
.2	-	Exclude oil from north mouth and divert it to shore for collection.												
	1700		50 OS	100	5	5/25lb/danforth anchors	2						6	
.3	-	Exclude/deflect past at south mouth of Slough.												
	2300				6	25/50lb/danforth	2						6	
.4	-	Oil Collection with Shoreside skimming system if oil accumulates in skimmable quantities												
	0	0	0		0	0		0	0	1	SSS	0		
2-805	<i>Three Mile Slough - Sacramento River</i>													
.1	-	Exclude oil from mouth on Sacramento River to prevent spread to San Joaquin												
	0													
.2	-	Diversion to collection in westerly portion of Slough, for oil from Sacramento River												
	2600		50 OS	100	5	5/50lb anchor + chain + line	2	1					9	
.3	-	Oil Recovery by Shoreside skimming												
	0	0	0		0	0		0	0	1	portable	0		
2-810	<i>Sacramento River, Lower Grand Island Reach</i>													
.1	-	Deflection to Collection at the east bank to keep oil in main deep-water channel and out of Sacramento River mouth.												
	13000		50 OS	100	30	30/40 lb/danforths	5	5					40	
.2	-	Eclusion to collection at southeast bank opposite Grand Island tip (at mouth) .												
	1500	3000			11	4/22+ 7/12+/danforths & stake	2	2					10	
.3	-	Oil Recovery by Shoreside skimming												
	0	0	0		0	0		0	0	2	SSS	0		
2-811	<i>Sacramento Anthicid Beetle Habitat</i>													
.1	-	exclude personnel from site to Protect beetle habitat from spill response related intrusions.												
	0										Flagging and stakes. Portable toilets.		2	
2-813	<i>Sacramento River, Isleton-Walnut Grove Reach</i>													
.1	-	If oil is threatening from north, execute Delta Cross Channel closure, boom Georgiana Slough mouth, and divert oil for coll												
	500		50 OS	600	3	3/25lb/danforths							6	
.2	-	For oil spills from the Isleton area, deploy collection, exclusion boom below bridge to intercept oil and prevent spread upst												
	700		50 OS	100	3	3/25lb/danforth anchors, 200ft l	1	1					5	
.3	-	Oil Recovery by Shoreside skimming												
	0	0	0		0	0		0	0	2	SSS/SP	0		
2-814	<i>Georgiana Slough</i>													
.1	-	Exclusion-diversion boom across the mouth for oil coming down Sacramento River from the north.												
	1200			500	4	4/25lb/danforth	2	1					6	
.2	-	Flood tide oil threats at the South mouth: deter oil entry by deflection into the channel and exclusion booming across mou												
	2100				12	12/25lbs/danforth							7	
.3	-	Oil Recovery by Shoreside skimming												
	0	0	0		0	0		0	0	2	SSS/SP	0		
2-815	<i>Delta Cross Channel/Lower Snodgrass Slough</i>													
.1	-	Exclude oil from entering Delta Cross Channel												
	1800			200	12	12/50lbs/danforth + chain + lin	3	1					11	
.2	-	Divert oil to shore for collection, if oil enters Delta Cross Channel from the Sacramento River.												
	0	1200	50 OS	700	4	4/25lb/danforths	1	1	2	portable			5	
.3	-	If any oil enters site, execute exclusion 2-816.1at mouth to upper Snodgrass Slough and wetland complex: execute												
	0													
.4	-	Oil Recovery with shoreside skimming												
	0	0	0		0	0		0	0	2	portable	0		
2-816	<i>Snodgrass Slough Complex</i>													
.1	-	Exclude oil from moving from/to Snodgrass complex through Delta Cross Channel												
	0	500		200	2	2/25lb/danforths	1	1						
2-820	<i>Sacramento River, Courtland-Sacramento Reach</i>													

Site	Site Name													
sub-strategy	PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT													
	Harbor	Swamp	Other	Sorbant	Anchoring		Boom	Skiff	Skimmer	Special Equipment	(and notes)	deploy	Staff to	
	Boom	boom	boom/TYPE	boom	No	type of gear	boat		No	Type	No	and kinds	staff	tend
1	-	Diversion to collection at Miller Park sandy beaches, for oil in the River above the locks												
	0	4400		700	7	7/50lbs/danforth anchors	2	1					25	
2	-	Divert to collection at a favorable location where logistics and prevailing conditions permit oil interception and collection.												
	0	3000	50 OS	100	7	7/50 lb/danforth, 200ft line	2	2					8	
3	-	Oil Recovery by Shoreside skimming												
	0	0	0	0	0		0	0	2	portable	0			
2-830	Steamboat Slough													
1	-	Exclusion/diversion to collection at the Sacramento mouth: divert it to shore-side collection.												
	0	1300	50 OS	600	7	3/25lb+4/40lb/danforth	1	1					9	
2	-	Exclusion/deflection booming Steamboat Slough south mouth on Cache Slough on incoming tides.												
	500			500	5	5/25lb/danforth	1	1					5	
3	-	Oil Recovery by Shoreside skimming												
	0	0	0	0	0		0	0	1	SSS	0			
2-832	Sutter Slough													
1	-	Exclude oil and divert to shore for collection, for oil threats to Sacramento mouth.												
	0	500	50 OS	1100	2	2/25lb danforth anchors	0	1					6	
2	-	For oil threats from upstream, deflection boom above the Sacramento mouth to keep oil to mid channel and away from mo												
	0	600			3	3/40lb/danforths	0	1					3	
3	-	exclusion boom at the south mouth on Steamboat Slough.												
	0	500		100	2	2/25lb/danforth	0	1					2	
4	-	Oil Recovery by Shoreside skimming												
	0	0	0	0	0		0	0	1	SSS	0			
2-834	Elk Slough													
1	-	Exclude oil from entering Elk Slough												
	100	200		70	2	2/15lb/danforth anchors	0	1					2	
2-840	Lindsey Slough													
1	-	Exclusion/deflection to keep oil in main ship channel and prevent oil from entering reaches of upper Cache, Miner, Prospe												
	0													
2-850	Cache Slough													
1	-	Defleciton/exclusion to keep oil in main ship channel and prevent oil from entering reaches of upper Cache, Miner, Prospe												
	1500			5		/50lb/danforth anchors	2	1					8	
2	-	exclusion/to confinement/collection across Cache Slough at Prospect Slough mouth												
	2000	50 OS	100	6	22lb/danforths		2	2						
3	-	CHANGE to 860 exclusion boom at Lindsey Slough mouth												
	1200			1000	5	25lb/danforths	2	1					8	
4	-	Oil Recovery by Shoreside skimming												
	0	0	0	0	0		0	0	2	SSS	0			
2-855	Miner Slough													
1	-	Exclude oil from entering north mouth at Sutter Slough by deploying diversion/exclusion oil to shunt oil past mouth.												
	0	200		150	4	4 anchors							2	
2	-	Deter oil entry into south mouth at Cache Slough using deflection/exclusion booming at mouth. See Cache Slough primary												
	0													
2-859	Sacramanto River Deep Water Ship Channel													
1	-	For oil threat from Cache Slough, divert to shore for stranding & collection inside and near the mouth of the channel using												
	1300	50 OS	1400	5	5/25lb/danforths		2	1	1				8	
2	-	Exclusion of Lake Washington (east of Port) and deflection to shoreside confinement												
	2000	700	50 OS	1100	5	9/22+/danforths& stakes	2	1		10	stakes		8	
3	-	Oil Recovery with shoreside skimming												
	0	0	0	0	0		0	0	4	SSS	0			
2-860	Prospect Slough													
1	-	exclusion boom Prospect Slough mouth and marsh and upper Cache Slough openings to Liberty Isl.												
	1300	2200		2400	6	6/25lb/danforths	2	1					8	
2-870	Lower Mokelumne River													
1	-	Exclude oil from entering Mokelumne mouth on the flood tide by exclusion-collection booming toward eddy to west of mo												
	1500	1000	50 OS	100	5	5/25lbs/danforth, chain and line	2	2					14	
2	-	Back up strategy: Diversion to collection at favorable shore-side collection and boom marina entries.												
	0	2000	50 OS	100	5	5/25lb/danforth anchors & stak	1	1					9	
3	-	Oil Recovery by Shoreside skimming												
	0	0	0	0	0		0	0	2	SSS	0			
2-873	North Mokelumne River													

Site	Site Name													
sub-strategy	PREVENTION OBJECTIVE OR CONDITION FOR DEPLOYMENT													
	Harbor Boom	Swamp boom	Other boom/TYPE	Sorbant boom	Anchoring No	type of gear	Boom boat	Skiff	Skimmer No	Special Equipment No	Equipment and kinds	(and notes)	deploy staff	Staff to tend
.1	-	For oil threats from the north, diversion booming to favorable shore-side collection.												
0	400	50	OS	500	2	2/25lb/anchors	0	1					3	
.2	-	If oil is threatening from south (San Joaquin River), execute south Georgiana Slough strategy and exclude oil movement u												
0	700			600	2	2/25lb/anchors	0	1					3	
.3	-	Protection/deflection boom around mid-channel island for oil moving in midstream.												
0	1000			400	4	4/15lb/danforths & stakes	1	1					3	
.4	-	Oil Recovery by Shoreside skimming												
0	0	0		0	0		0	0	1	SSS	0			
2-880	South Mokelumne River													
.1	-	Exclusion booming at south mouth.												
0	500				2	2/25/DANFORTH	0	1					2	
.2	-	Exclusion booming at north end. Current is downstream during most times of the year.												
0	100	50	OS	100	2	2/25/danforth							2	
.3	-	Protect marshy islands within channel												
0	3000			1000	12	12/15/Danforths							4	
.4	-	Oil Recovery by Shoreside skimming												
0	0	0		0	0		0	0	1	SSS	0			
2-882	Sycamore Slough													
.1	-	Exclusion booming across the mouth.												
0	300			300	2	2/15/DANFORTH	0	1					2	
2-884	Sycamore Island													
.1	-	Phase I: Stop oil from penetrating or oiling the island by placing exclusionary boom across the channel meander and the e												
0	1500			1500	4	4/15/DANFORTH	0	2					4	
.2	-	Phase II: Divert oil away from island side of river toward the east bank to minimize exposure of island to oil.												
0	300				2	2/15/danforth	0	1					4	
2-886	Hog Slough													
.1	-	Exclusion booming at mouth by stringing lengths of boom between the two channel islands.												
0	900			900	8	8/15/DANFORTH	1	1					2	
2-888	Beaver Slough													
.1	-	Exclusion booming across the mouth.												
0	350			300	3	3/15/DANFORTH	0	1					2	
2-890	Mokelumne River, New Hope Reach													
.1	-	Diversion to collection: Stop oil from moving freely moving down the river												
0														
2-895	Cosumnes River Reserve													
.1	-	Diversion to collection: Stop oil from moving freely in the reserve and down the river.												
0														
2-896	Mokelumne River, Thornton Reach													
.1	-	Diversion to collection.												
0														

County: **Sacramento, Solano**

Thomas Guide Location

Latitude N

Longitude W

3 8 05

121 45

USGS Quad: **Rio Vista, Antioch North, Jersey Is**

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

Site extends from levied portion of Sherman Island (about at G11) to Rio Vista Bridge. This is the main stem of the Sacramento system. The entire reach is broad open water with wave swept shores to the windward. The lower sections have modest beaches on the leeward (Solano) side and are ripped on the windward with occasional emergent vegetation sands and beaches. Some mature trees remain, but most were cleared during revetment projects.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy locales are "A" priority at all times. Special Status Species occur here.

RESOURCES OF PRIMARY CONCERN

Marshy margins, riparian growths and banks are habitat for diverse species. Delta smelt can use these areas for spawning. Breeding, feeding and loafing area for a variety of waterbirds and riparian species. This is an important reach to migratory fish, especially winter-run chinook(F/CE): this is within the zone of highest concern from mid-September through May. Delta Smelt (F/CT) occur here in high numbers at various times and years. Several special status species of plants are found here including Suisun marsh aster, Delta tule pea, Delta mudwort, Mason's lilaeopsis. There are cultural sites here.

Delta Smelt, Chinook Salmon

Delta tule pea

Mason's lilaeopsis

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TL	Ron Breen	CA Dept. of Parks & Recreation	(916) 445-7373
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-800 -AB Site Strategy - Sacramento River, Lower Reach

2-800 -AB

County and Thomas Guide Location

NOAA CHART

Latitude N

Longitude W

Sacramento, Solano

18661 Sacramento & San Joaquin River

3 8 05

121 45

CONCERNS and ADVICE to RESPONDERS:

Last Page Update : 7/1/2005

Penetration in the riprap and potential impacts to marsh habitats. Avoid spreading oil to upland, roadways and banks. Avoid trampling oil into marshy areas or muddy bottoms. Do not tie boom to trees or shrubs on levees.

HAZARDS and RESTRICTIONS:

Roads are narrow with narrow shoulders in many places and traffic on Hwys is fast which poses a traffic hazard. Traffic control should be implemented at this site. Aerial traffic beware of high wires. Foot traffic beware of slips, trips and falls of riprap banks.

SITE STRATEGIES

This reach of the Sacramento River has predominantly westerly winds which may exceed 20 knots. Waves and currents can be an impediment to operations. Waters are deep in most areas, but the east shore is variable with some shoaling and snags. The entire shore, particularly the area just upstream from Threemile Slough tends to be a debris accumulation area and oil is likely to similarly strand along the shore.

Strategy 2-800.1 Objective: Diversion to collection at favorable sites such as beaches or riprap to immobilize and prevent further spread.

Deploy 500' 9x9+ collection booms at favorable collection points along the windward shores of Sherman Island and Brannon Island (but not on Brannon Island State Park shoreline). Booms should be set into the wind and will intercept along-shore movement of oil collecting on leeward shores. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect any oil that may accumulate. If oil accumulates in skimmable quantities contact IC.

Strategy 2-800.2 Objective: Oil Recovery with shore side skimming (SSS)

Deploy skimmers if oil accumulates in skimmable quantities. Establish skimming at shoreline. Consult IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment	staff deploy	Staff tend
2-800.1	3000		50 OS	100	8	8/50lb/danforth						15	
2-800.2	0	0	0	0	0		0	0	4 portable	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By boat most obvious access is from Rio Vista directly to the waters of this reach. By vehicle, Hwy 160 south from Hwy 12 at Rio Vista. Section along west Sherman Island is accessible from Sherman Island Rd. off of Hwy 160. Site extends from levied portion of Sherman Island (about at G11) to Rio Vista Bridge.

LAND ACCESS: All weather/Traffic most banks

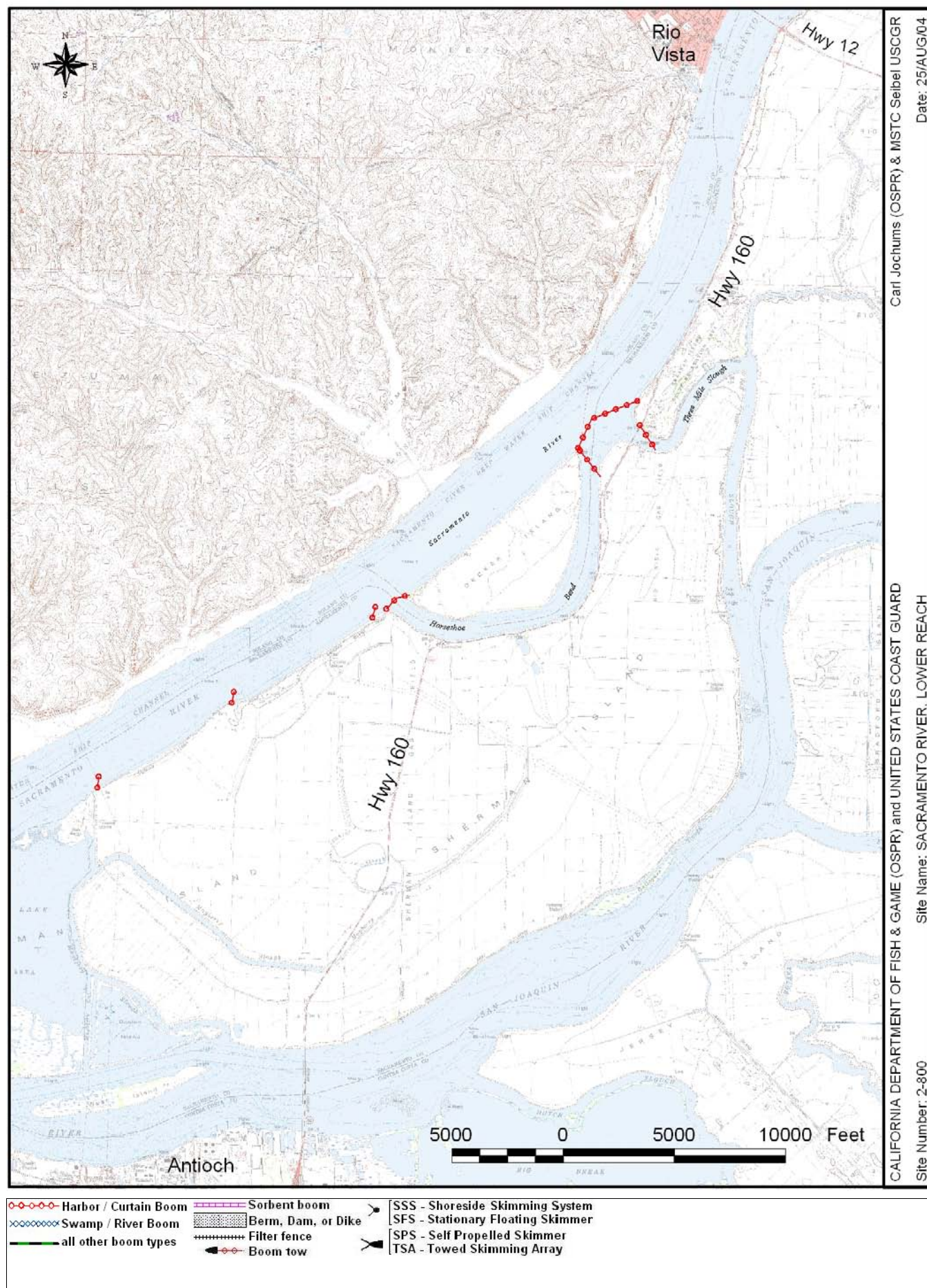
WATER LOGISTICS: Deep water except at margins
Limitations: depth, obstruction
Launching, Loading, Docking
and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Rio Vista has a full range of support facilities. Camping is possible at Brannon Island State Park and Lower Sherman Island Wildlife Conservation Area, and various small marina parks nearby. Rio Vista area marinas have full service. Alternative launches are near Grand Island or the Hwy 84 ferry slip.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**

Thomas Guide Location

Latitude N

Longitude W

USGS Quad: **Rio Vista**

3 8 00

121 00

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

Site extends from the Sacramento mouth of 3-mile Slough to reunion of Horseshoe Bend at south tip of Decker Island and includes a restored (2001) wetland at the north tip of Decker Island (DWR). This wide riverine habitat is confined between leveed banks. The reach has emergent tule marshes along most of its length and is premium Delta smelt spawning habitat. Uplands are trees and shrubs including many mature trees. Water margins are shallow and marshy with some extensive emergent patches particularly near the mouth. Portions are ripped. The restored marsh at the north tip opens on the Horse Bend side of the Island. There are two islands in the reach which have been developed as residences or marina/mobile parks, but most of the shoreline is undeveloped and natural.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy areas at this site have "A" priority at all times. Seven Special Status Species occur at or near this locale.

RESOURCES OF PRIMARY CONCERN

There are some extensive emergent marshy habitats, along both margins of the channel, which have great value for Delta smelt spawning as well as typical marsh values. Uplands have well developed riparian growth. Even revetments have well developed grasses, shrubby and trees. The aquatic habitat varies from deep and swift to shallow warm pockets.

Many raptor, canopy and riparian bird species occur here. Greater sand hill cranes winter in the neighboring interior of Sherman Island. The area also supports a diversity of waterbirds and marsh birds.

This site is excellent habitat for semiaquatic species of mammals and reptiles, amphibians and possibly western pond turtles.

A wide variety of fish, particularly migrant fish use this habitat. This is in the zone of high concern for winter-run chinook (F/CE) smolts and has relatively high abundance of Delta smelt (F/CT) during November and December.

In the luxuriant riparian and emergent vegetation here, two Special Status Species of plant can be found: Mason's lilaeopsis (F/CSC), and Suisun marsh aster (F/CSC).

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

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O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-804 -A Site Strategy - Sacramento River, Horseshoe Bend, Decker Island**2-804 -A**

County and Thomas Guide Location

NOAA CHART

Latitude N

Longitude W

Sacramento**18661 Sacramento & San Joaquin River**

3 8 00

121 00

CONCERNS and ADVICE to RESPONDERS:

Last Page Update : 7/1/2005

Concern for this site is secondary to keeping oil in Sacto River from moving into Threemile Slough and spreading to San Joaquin side of the Delta. Concerns within the site is oil penetrating the small marsh in the tip of Decker Island and the emergent marshes along the length. Beaver burrows and riprap are also places where oil may become lodged.

HAZARDS and RESTRICTIONS:

Roads are narrow and winding with narrow shoulders and low visibility curves in spots, and traffic on Hwy 160 (east levee) is fast and poses hazards: traffic control should be implemented at this site. Channel margins have thick vegetation, shallows and soft bottoms. Aerial traffic beware of occasional power wire crossings.

SITE STRATEGIES

The open area of Sacramento River at north end and south end is subject to strong currents and winds commonly exceeding 20 knots. Waters in lee of Decker Island is relatively protected from wind and waves. Boom can be delivered to Brannon Isl State Park or levees.

Strategy 2-804.1 Objective: deflection-exclusion booming: keep oil in main Sacramento River channel and out of 3-mile Slough and Horseshoe Bend.

Deploy deflection-exclusion boom in wide chevron to deflect oil past site and keep it in main channel. Use 4800' of 9X9+ curtain boom leaving trailing boom ends to maintain tidal seal.

Strategy 2-804.2 Objective: Exclude oil from north mouth and divert it to shore for collection.

Deploy 1700 ft 9x9+ exclusion-collection boom from the north tip of Decker Island at a diagonal to the Sherman Island levee for collection. Use 50 ft Oil Snare (OS), 100 ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-804.3 Objective: Exclude/deflect past at south mouth of Slough.

Deploy 2300 ft of 9X9+ exclusion-deflection boom across mouth in a shallow chevron from Sherman Island to Decker Island, leaving trailing ends to ensure tidal seal. Additional booming or sorbent booming may be necessary inside the mouth to deter oil movement if the outer chevron fails.

Strategy 2-804.4 Objective: Oil Collection with Shoreside skimming system if oil accumulates in skimmable quantities

Set up shore side skimming (SSS) operation at levee. Back with sorbent boom if entraining or escapement is likely. Consult IC prior to initiation of strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-804.1	4800				14	70/50lb/anchors + Chain + Line	4	2				16	
2-804.2	1700		50 OS	100	5	5/25lb/danforth anchors	2					6	
2-804.3	2300				6	25/50lb/danforth	2					6	
2-804.4	0	0	0	0	0		0	0	1SSS	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Via water, the site begins two miles north of the Rio Vista Bridge where the Sacramento River branches off Cache Slough and the Sacramento Deep Water Channel. By vehicle, the site begins two miles north of the Hwy 12 Rio Vista Bridge on Hwy 160. Site extends from the Sacramento mouth of 3-mile Slough to reunion of Horseshoe Bend at south tip of Decker Island and includes a restored (2001) wetland at the north tip of Decker Island (DWR).

LAND ACCESS: ALL WEATHER & TRAFFIC ON

WATER LOGISTICS: ACCESS LIMITED DUE TO VEGETATION

Limitations: depth, obstruction

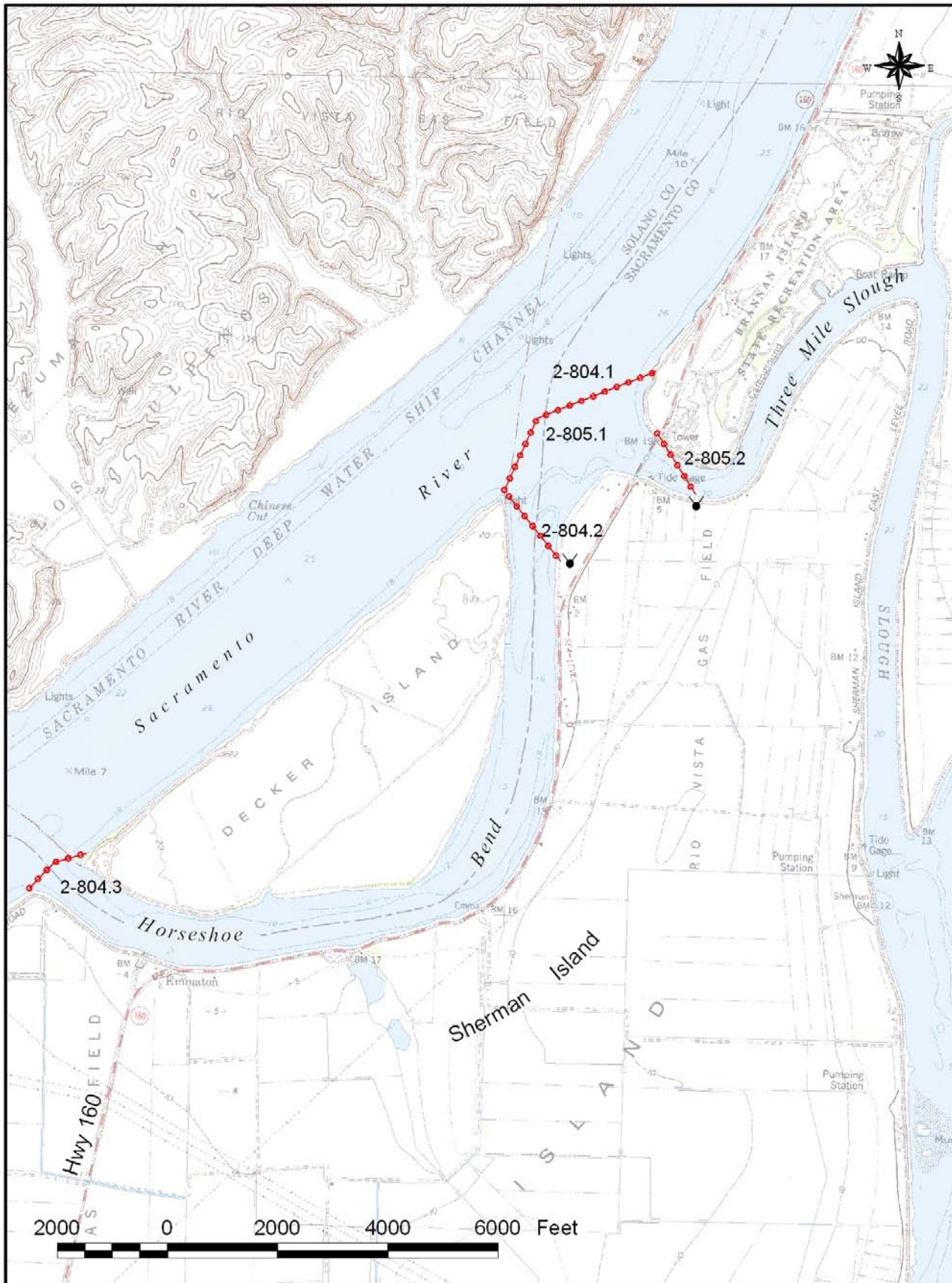
Launching, Loading, Docking Launch facilities are available at Rio Vista or Brannon Island State Park.
and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Rio Vista USCG station or Brannon Island State Park would serve well as a staging or command site for this area. Either could be used as a deployment site as well. Rio Vista is the nearest locale with full support services, food, lodging, emergency service, marine repair, etc.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:











Carl Jochums (OSPR) & MSTC Seibel USCGR

Site Number: 2-804/805 Site Name: SACRAMENTO RIVER, HORSESHOE BEND AT DECKER ISLAND / THREE MILE SLOUGH - SACRAMENTO RIVER Date: 25/AUG/04

Site Number: 2-804/805

UGH - SACRAMENTO RIVER

Site Number: 2-804/805 Site Name: SACRAMENTO RIVER, HORSESHOE BEND AT DEC

- | | | | | | |
|---|-----------------------|---|--------------------|---|-----------------------------------|
| | Harbor / Curtain Boom | | Sorbent boom | | SSS - Shoreside Skimming System |
|  | Swamp / River Boom |  | Berm, Dam, or Dike |  | SFS - Stationary Floating Skimmer |
|  | all other boom types |  | Filter fence |  | SPS - Self Propelled Skimmer |
| | |  | boom tow |  | TSA - Towed Skimming Array |

County: **Sacramento**
 USGS Quad: **Rio Vista**

Thomas Guide Location

Latitude N
38 06.5
 Longitude W
121 41.2

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This Slough is about 3.5 mile long from its mouth on the Sacramento River to its mouth on the San Joaquin River. Site also includes the westerly end of Sevenmile Slough. This swift flowing channel is ripped on most of its steep banks. There are pockets of riparian vegetation. Brannon Island State Park borders its northwestern edge. There are pockets of emergent growth along its length, particularly in the Sevenmile Slough channel at the Park. This is a key control point to prevent oil spread from one side of the Delta to the other.

SEASONAL and SPECIAL RESOURCE CONCERNS

This is a key site in containing the spread of oil. There are significant resource here all year but overwhelming concern is to prevent oil movement between Sacramento and San Joaquin River systems.

RESOURCES OF PRIMARY CONCERN

Riparian and wetland habitat is prominent in Brannan Island State Recreation Area. This Slough is also a key location for habitats in general since it permits flow (and spread of oil) between central and northwest Delta.

Riverine bird life typifies the area. Greater sandhill cranes (CT) winter in the nearby interior of Sherman Island.

Emergent vegetation is spawning habitat for Delta smelt (F/CT), and their fry are commonly present in moderate to high densities.

This waterway is also within the zone of highest concern for winter-run chinook salmon (F/CE) smolts from September through May.

Sensitive plant species found here include Suisun marsh aster, Delta tule pea, Mason's lilaeopsis (all F/CSC), and Antioch dunes evening primrose (F/CE).

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TL	Ron Breen	CA Dept. of Parks & Recreation	(916) 445-7373
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-805 -B Site Strategy - Three Mile Slough - Sacramento River

County and Thomas Guide Location

Sacramento

NOAA CHART

18661 Sacramento & San Joaquin River

2-805 -B

Latitude N Longitude W

38 06.5 121 41.2

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into rip-rap, wetland, and riparian habitat.

HAZARDS and RESTRICTIONS:

Steep riprap banks and eroded banks with thick vegetation are obstacles to foot traffic. Narrow road and narrow shoulders creates a hazardous situation. Traffic control should be implemented at this site.

SITE STRATEGIES

Strategy 2-805.1 Objective: Exclude oil from mouth on Sacramento River to prevent spread to San Joaquin

See Sacramento River, Horseshoe Bend strategy, 2-804.

Strategy 2-805.2 Objective: Diversion to collection in westerly portion of Slough, for oil from Sacramento River

This is a key deployment to keep oil in the Sacramento River from spreading to the San Joaquin River. At Hwy 160 bridge, deploy a collection diagonal to land the oil at the most favorable collection point under prevailing wind and current conditions. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Repeat this configuration as necessary to intercept oil spreading from west to east.

Strategy 2-805.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmer if oil accumulates in skimmable quantities. Collect oil with land-based skimmer. Consult with IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-805.1	0										
2-805.2	2600		50 OS	100	5 5/50lb anchor + chain + line	2	1			9	
2-805.3	0	0	0	0	0	0	0	1 portable	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

This site is easily accessible from either Sacramento or San Joaquin Rivers since it is a major cross link. Also, the boat ramp at Brannon Island State Park is on the Slough. Levee Roads and Hwy 160 provide vehicle access: Sherman Island Road is an all weather/all traffic paved road; Twitchell Island levee roads are private (DWR). This Slough is about 3.5 mile long from its mouth on the Sacramento River to its mouth on the San Joaquin River. Site also includes the westerly end of Sevenmile Slough.

LAND ACCESS: ALL WEATHER/TRAFFIC

WATER LOGISTICS: GENERALLY VERY GOOD WATER

Limitations: depth, obstruction

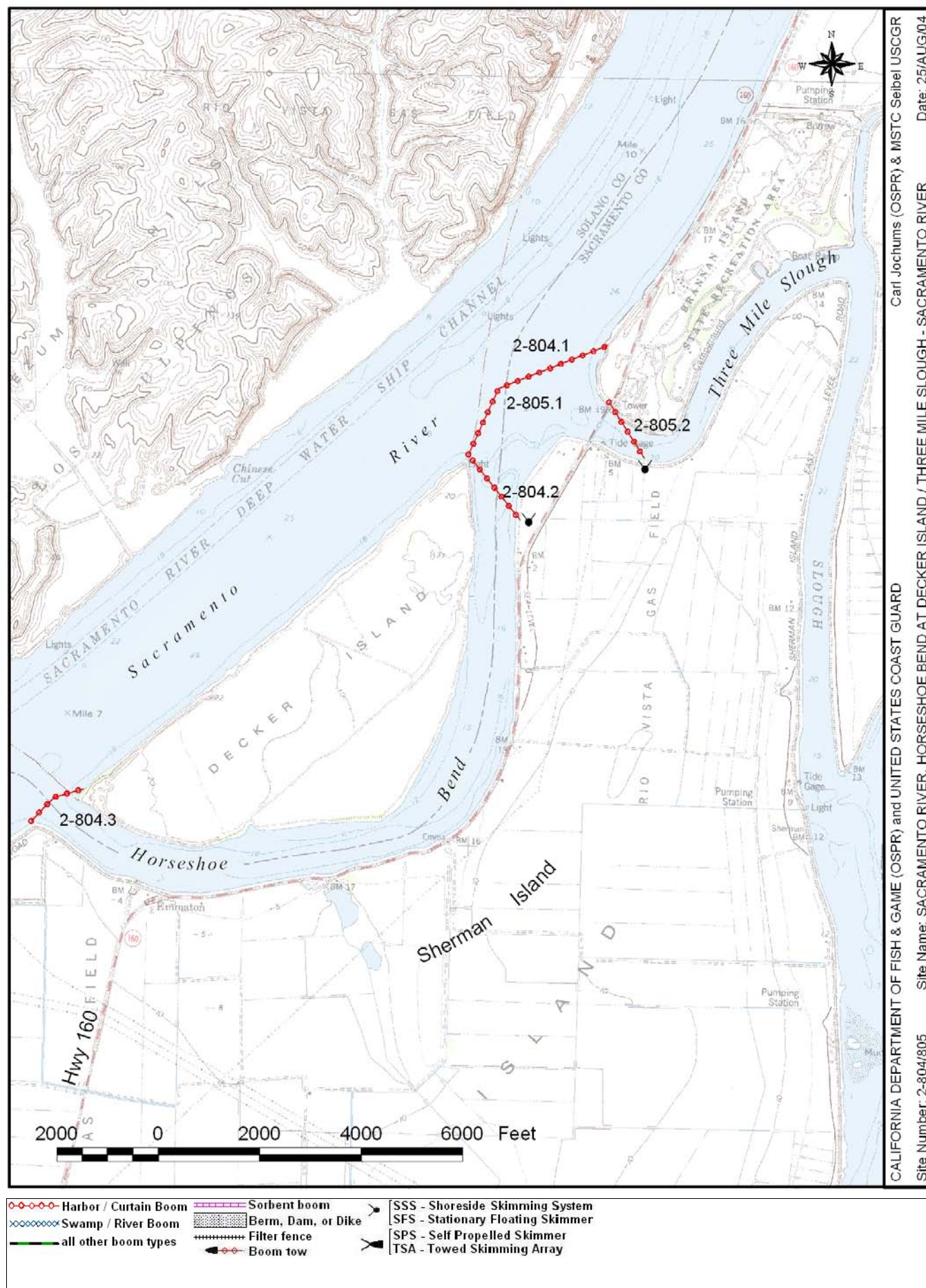
Launching, Loading, Docking and Services Available: Launching facilities available at Brannon Island State Recreational Area.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging area available on river side and slough side at Brannon Island Recreational Area. Facilities including restrooms, electricity, and phone available.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento, Solano**
USGS Quad: **Rio Vista**

Thomas Guide Location

Latitude N
38 10.5

Longitude W
121 39.5

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from the Rio Vista Bridge up the Sacramento river past the tip of Grand Island (G1) to the Isleton Bridge. This wide riverine habitat is confined between leveed banks. The lower portion has been identified by both DMRP and NHD/DFG as having extraordinary habitat values. Uplands are trees and shrubs including many mature trees. Water margins are shallow and marshy with some extensive emergent patches particularly near the mouth, where there is an extensive emergent marsh just downstream from Grand Island. Portions are ripped. There are two islands in the reach which have been developed as residences or marina/mobile parks, but most of the shoreline is undeveloped and natural.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy areas at this site have "A" priority at all times. Seven Special Status Species occur at or near this locale.

RESOURCES OF PRIMARY CONCERN

There are some extensive marshy habitats, particularly near the tip of Grand Island where they extend well into the channel on both sides and at the mouth. Uplands have well developed riparian growth. Even revetments have well developed grasses, shrubbery and trees. The aquatic habitat varies from deep and swift to shallow warm pockets.

The Swainson's Hawk (FT/CT) occurs here as do many other raptors canopy and riparian species. The area also supports a diversity of waterbirds and marsh birds.

The lower portion of the site is excellent habitat for semi aquatic species, amphibians and possibly western pond turtles.

A wide variety of fish, particularly migrant fish, use this habitat. This is in the zone of high concern for winter-run chinook (F/CE) smolts and has relatively high abundance of Delta smelt (F/CT) during November and December.

Two endangered insects occur in habitat adjacent to this site: the Sacramento anthicid beetle and the Antioch dunes anthicid beetle occur on the upland sands at the tip of Grand Island.

In the luxuriant riparian and emergent vegetation here, two Special Status Species of plant can be found: Mason's lilaeopsis (F/CSC), and Delta tule pea (F/CSC).

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
OL	State Water Project Ops C	CA Dept. of Water Resources	(916) 574-2714
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
OEL	Mary Hildebrand	South Delta Water Agency	(209) 403-4082
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-810 -A Site Strategy - Sacramento River, Lower Grand Island Reach

County and Thomas Guide Location

Sacramento, Solano

NOAA CHART

18661 Sacramento & San Joaquin River

2-810 -A

Latitude N

Longitude W

38 10.5

121 39.5

CONCERNS and ADVICE to RESPONDERS:

Last Page Update :

7/1/2005

Infiltration of oil into thick riparian habitat and emergent marshes. Beaver and other animal burrows may be present.

HAZARDS and RESTRICTIONS:

Roads are narrow and winding with narrow shoulders and low visibility curves in spots, and traffic on Hwy 160 (east levee) is fast and poses hazards: traffic control should be implemented at this site. Channel margins have thick vegetation, shallows and soft bottoms. Aerial traffic beware of occasional power wire crossings.

SITE STRATEGIES

Strategy 2-810.1 Objective: Deflection to Collection at the east bank to keep oil in main deep-water channel and out of Sacramento River mouth.

1. Deploy 3 deflection booms (3000' 9x9+ each) in Cache Slough upstream from Grand Island tip to divert oil to main channel and keep it away from marshy areas at Grand Island tip.
2. Set a wide chevron of boom (4000' 9x9+ curtain boom) pointing downstream for flood tide. One wing will divert oil near east shore to a collection point just upstream from Das Cliff Haus at the county day use site; the other wing will divert oil on open water into main channel and away from the marshes at the tip of Grand Island.
3. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect any oil that may accumulate. If oil collects in skimmable quantities, contact IC.

Strategy 2-810.2 Objective: Eclusion to collection at southeast bank opposite Grand Island tip (at mouth) .

Deploy 1500' 9x9+ exclusion-collection boom from tip of Grand Island upstream and across to small sandy beach on Brannon Island shore (at the curve of Hwy 160). Line the marsh downstream with 3000'4x4+ of protective boom. If there is much wind chop, both will need to be backed with sorbent boom.

Strategy 2-810.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities as a result of strategy .1 and/or .2. Establish land-based skimming at beach if oil accumulates as a result of strategy .2. Consult with IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-810.1	13000		50 OS	100	30 30/40 lb/danforths	5	5			40	
2-810.2	1500	3000			11 4/22+ 7/12+/danforths & stake	2	2			10	
2-810.3	0	0	0	0	0	0	0	2SSS	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Via water, the site begins at the Rio Vista Bridge and branches off the Sacramento Deep Water Ship Channel at Cache Slough, following the easterly shoreline to the Isleton Bridge. By vehicle, Hwy 160 runs along the east levee from Hwy 12 to the Isleton bridge. Site extends from the Rio Vista Bridge up the Sacramento river past the tip of Grand Island (G1) to the Isleton Bridge.

LAND ACCESS: ALL WEATHER & TRAFFIC HWY 160

WATER LOGISTICS: ACCESS LIMITED DUE TO VEGETATION

Limitations: depth, obstruction

Launching, Loading, Docking

and Services Available:

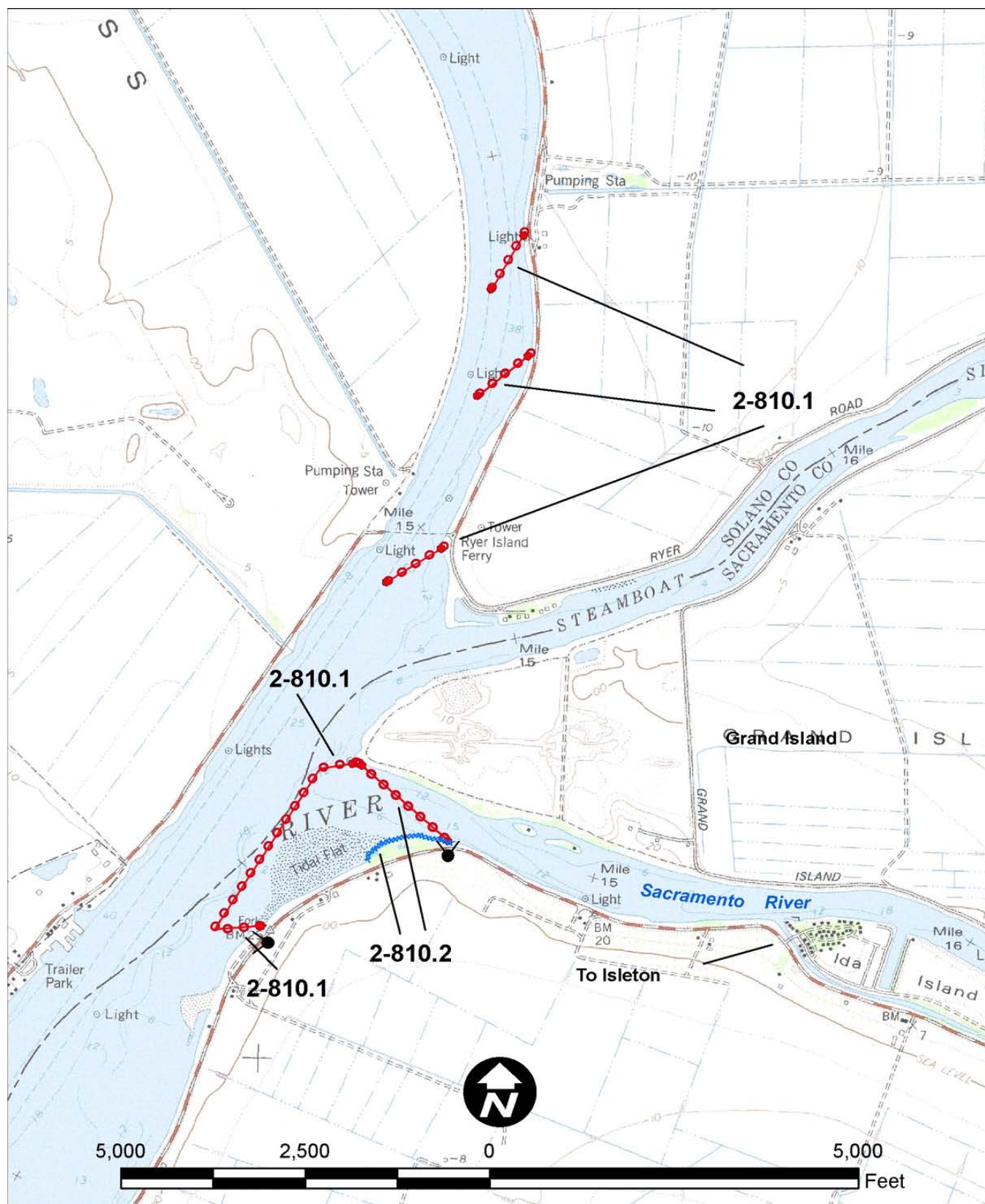
Hidden Harbor, Vieira's Resort, Isleton Boat Ramp and Das Cliff Haus have launching, fuel, moorage and limited marine service. There is a free public launch and parking area at the mouth of this site.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

This Wildlife Conservation Board access site opposite the tip of Grand Island along Hwy 160 would serve well as a local deployment site. The major deployment site would still remain either the Ryer Island ferry landing (Hwy 84) on deep water channel above Steamboat Slough or Rio Vista. Rio Vista is the nearest locale with full support services, food, lodging, emergency service, marine repair, etc.







COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
Site: 2-810 Site Name: Sacramento River, Lower Grand Island Reach

Craig Haffner (OSPR) & Greg Ewing (OSPR)
Date: March 2, 2011

	Harbor / Curtain Boom		Sorbent boom		SSS - Shoreside Skimming System
	Swamp / River Boom		Berm, Dam, or Dike		SFS - Stationary Floating Skimmer
	all other boom types		Filter fence		SPS - Self Propelled Skimmer
			Boom tow		TSA - Towed Skimming Array

County: **Sacramento**
 USGS Quad: **Rio Vista**

Thomas Guide Location

Latitude N
 38 10.7

Longitude W
 121 39.5

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site is the triangular south tip of Grand Island. It is bordered on two sides by the levees and on the third (east side) by the levee road. This site is the habitat for two endangered beetle species. It was formerly a dredge spoils site and was also used as a dump at one time. It is high sandy ground surrounded by levees. It has become colonized by shrubs, trees and other natural vegetation. Its has been identified by both Delta Master Recreation Plan and DFG/NHD as having extraordinary habitat values.

SEASONAL and SPECIAL RESOURCE CONCERNS

RESOURCES OF PRIMARY CONCERN

Primary concern is inadvertent disturbance or destruction of beetle habitat. Other herb and shrub habitats are present. Riparian community is part of adjacent sites.

A wide variety of upland bird life occurs here including Swainson's hawk (F/CT) and other raptors.

A wide variety of upland mammals, reptiles and other land fauna occur here.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-811 -C Site Strategy - Sacramento Anthicid Beetle Habitat

2-811 -C

County and Thomas Guide Location

NOAA CHART

Latitude N Longitude W

Sacramento

18661 Sacramento & San Joaquin River

38 10.7 121 39.5

CONCERNS and ADVICE to RESPONDERS:

Last Page Update : 7/1/2005

There are no direct potential oiling impacts: HOWEVER, this area should be avoided and NOT be used for a staging area, waste oil or oily debris storage, equipment storage, camping, or random usage. Traffic using surrounding levees to access water margins should be tightly controlled.

HAZARDS and RESTRICTIONS:

Narrow road and narrow shoulders pose a potential traffic hazard: traffic control should be implemented at this site. Thick vegetation along shore and poison oak. Slips, trips and falls.

SITE STRATEGIES

Strategy 2-811.1 Objective: exclude personnel from site to Protect beetle habitat from spill response related intrusions.

1. Flag area to block entries.
2. If levees are used to access beach front:
 - a) flag and tape-off site to discourage foot and vehicle traffic off the levee into habitat; b) Set up traffic patterns and turn-arounds; c) Enforce strict decon practices.
3. Provide portable toilets at points where there may be frequent worker presence.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment and kinds	staff deploy	Staff tend
2-811.1	0								Flagging and stakes. Portable toilets.	2	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

This is a land site without water access. Vehicle access is from Hwy 160 at the Isleton bridge, the site is 3.5 miles south on the Grand Island (west bank) levee road: at the site the road drops of the levee and runs along the front of the site to the other side of the island. This site is the triangular south tip of Grand Island. It is bordered on two sides by the levees and on the third (east side) by the levee road.

LAND ACCESS: ALL WEATHER/TRAFFIC

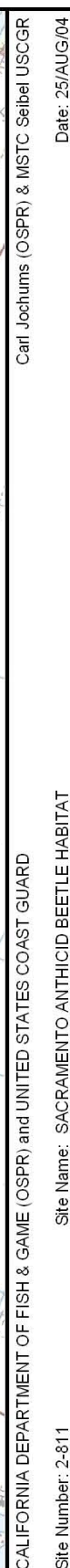
WATER LOGISTICS: NO ACCESS

Limitations: depth, obstruction
Launching, Loading, Docking
and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
USGS Quad: **Clarksburg, W Sacramento, Courtland**

Thomas Guide Location
NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N
38 10.5
Longitude W
121 35.5

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site extends from the bridge at Isleton to the Delta Cross Channel at Walnut Grove. This site is fully leveed along its length with bench banks on the inside stretches and riprap on outside curves. Most of the riparian vegetation has been removed in riprap areas, but considerable shrub-scrub is found at this site. Occasional sandy beaches and emergent vegetation are found. It is deep and has a strong flow. It is heavily fished throughout the year, particularly when migratory fish are present such as: salmon, steelhead, American shad and striped bass. Two significant side channels branches off at Walnut Grove: Delta Cross Channel and Georgiana Slough.

SEASONAL and SPECIAL RESOURCE CONCERNS

Winter-run chinook (F/CE) must pass though this site from September through May. High concentrations of other migratory fish are present at various times of the year.

RESOURCES OF PRIMARY CONCERN

Shrubby riparian and emergent growths, steep levees and riprap are the land habitats available. The aquatic habitat is CRITICAL to many migratory species of fish including a proportion of all the salmonid stocks for the Sacramento Valley, striped bass, American shad, and Sacramento splittail.

Swainson's hawks (FSC/CT) frequent this site as do many raptors.

In addition to resident warmwater species, this is IMPORTANT habitat to migratory fish species. A proportion of the migratory fish of the Sacramento Valley use this corridor or reside here for some portion of their life-cycle. These include: all the steelhead and salmon stocks (including winter-run chinook (F/CE)), American shad, striped bass, white and green sturgeon, and Sacramento splittail (F/CSC).

This area is commercially fished for crayfish.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-813 -AC Site Strategy - Sacramento River, Isleton-Walnut Grove Reach

2-813 -AC

County and Thomas Guide Location

NOAA CHART

Latitude N

Longitude W

Sacramento

18662 SACRAMENTO RIVER

38 10.5

121 35.5

CONCERNS and ADVICE to RESPONDERS:

Last Page Update : 7/1/2005

Infiltration of oil into riprap and beaver and invertebrate burrows is likely. Petroleum products are liable to be pumped to neighboring ag lands. Toxic effects on fish life. Penetration in the riprap and potential impacts to riparian habitats.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of power wire crossings over the river; ALSO, TV towers in Walnut Grove area are a severe aerial hazard. Levee roads are narrow with narrow or no shoulders. Steep ripped levees are a hazard to motorists and foot traffic. High boat traffic use and general public use. Narrow road and narrow shoulders creates a hazardous situation. Traffic control should be implemented at this site. Loose footing near water.

SITE STRATEGIES

Strategy 2-813.1 Objective: If oil is threatening from north, execute Delta Cross Channel closure, boom Georgiana Slough mouth, and divert oil for collection.

1. See sites 2-815, 2-814 for side Cross Channel and Georgiana closures.
2. Using collection, exclusion configuration, set 500 ft of 6X6+ boom across the Sacramento River just downstream from the mouth of the Georgiana Slough mouth. Angle the boom to take advantage of favorable current and wind to drive oil to bank for collection. Winds will favor the east bank but currents and eddies may drive oil to west bank. Use 50ft Oil Snare (OS), 100ft sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-813.2 Objective: For oil spills from the Isleton area, deploy collection, exclusion boom below bridge to intercept oil and prevent spread upstream.

Downstream from the Isleton Bridge, deploy 700' 6X6+ collection, exclusion boom across river to direct oil to shore for collection. Generally winds favor collection at the easterly shoreline, but angle to best advantage under existing wind and current (incoming tide) conditions. Use area at grainery for deployment and operations. Use 50ft Oil Snare (OS), 100ft sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-813.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. Set up a land-based skimming operation at the incident levee if oil accumulates in skimmable quantities as a result of strategy .1. Set up land-based skimmer, back with sorbent as necessary if oil accumulates in skimmable quantities as a result of strategy .2. Consult IC prior to the initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	Anchoring type and gear	Boom boat	Skiffs punts	Skimmers No	Skimmers Type	Special Equipment or comment and kinds	staff deploy	Staff tend
2-813.1	500		50 OS	600	3	3/25lb/danforths						6	
2-813.2	700		50 OS	100	3	3/25lb/danforth anchors, 200ft line	1	1				5	
2-813.3	0	0	0	0	0		0	0	2 SSS/SPS	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

This portion of the Sacramento River is accessible by boat from marinas at Walnut Grove and Isleton. Both levees have all weather, all vehicle roads along their lengths, including Hwy 160. This site extends from the bridge at Isleton to the Delta Cross Channel at Walnut Grove.

LAND ACCESS: UNRESTRICTED ACCESS THROUGHOUT

WATER LOGISTICS: GOOD WATER THROUGHOUT

Limitations: depth, obstruction

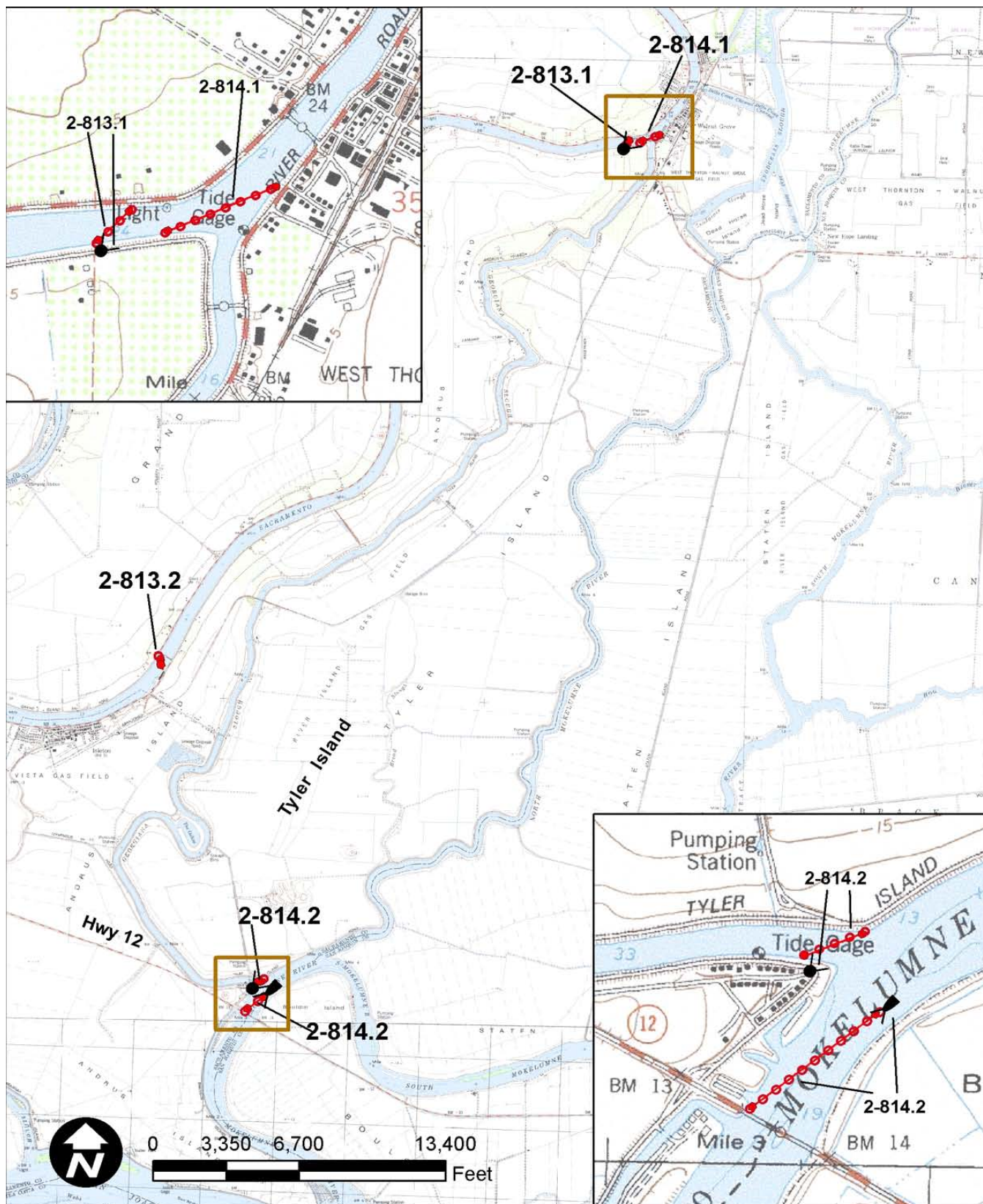
Launching, Loading, Docking and Services Available: Launch facilities are available at Isleton and Walnut Grove.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

A wide variety of facilities are available at Isleton and Walnut Grove though capacity is limited in these small communities. Sacramento and Rio Vista have full facilities.

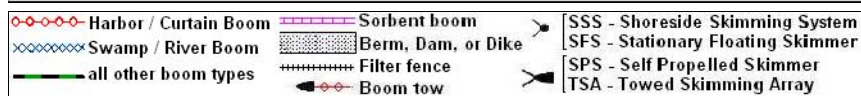
COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-813 / 2-814 Site Name: Sacramento River, Isleton-Walnut Grove Reach / Georgia Slough

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 2, 2011



County: **Sacramento**
 USGS Quad: **Isleton, Courtland, Rio Vista**

Thomas Guide Location

Latitude N
38 14.2
 Longitude W
121 31

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site extends from its upper mouth just downstream from the Walnut Grove bridge to its lower mouth on the Mokelumne just north of Hwy 12. Georgiana Slough is a winding, leveed waterway which is a side channel of and important by-pass flow management for the Sacramento River. It is deep and swift with few beaches but frequent bench-banks with considerable shrub-scrub and some mature riparian vegetation but little emergent vegetation. Migratory fish wander into this channel and are sidetracked from their normal migration pattern: salmon, steelhead, American shad and striped bass.

SEASONAL and SPECIAL RESOURCE CONCERNS

Winter-run chinook smolts(F/CE) pass though this site from September through May. High concentrations of migratory fish are present at various times of the year.

RESOURCES OF PRIMARY CONCERN

Shrubby riparian and emergent growths, steep levees and riprap are the land habitats available. Aquatic habitats are limited by swift water and high scouring. Occasional marsh and riparian habitat.

Swainson's hawks (FSC/CT) frequent this site as do many raptors.

This area is commercially fished for crayfish.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-814 -AC Site Strategy - Georgiana Slough

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-814 -AC

Latitude N Longitude W

38 14.2 121 31

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into riprap and beaver and invertebrate burrows is likely. Petroleum products are liable to be pumped to neighboring ag lands. Toxic effects on fish life. Infiltration of oil into riprap, wetland, and riparian habitat. Occasional marsh/aquatic plants present.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of power wire crossings over the River; ALSO, TV towers in Walnut Grove area are a severe aerial hazard. Levee roads are narrow with narrow or no shoulders. Steep ripped levees are a hazard to motorists and foot traffic. High boat traffic use and general public use. Narrow road and narrow shoulders creates a hazardous situation. Traffic control should be implemented at this site. Thick vegetation along shore and poison oak. Loose footing near water. Narrow road, narrow shoulders, thick vegetation, deep water and fast flow create a hazardous situation. Traffic control should be implemented at this site.

SITE STRATEGIES

Strategy 2-814.1 Objective: Exclusion-diversion boom across the mouth for oil coming down Sacramento River from the north.

Deploy 1200 ft of 9x9+ exclusion-deflection boom at north mouth of Georgian Slough. Anchor one end 600ft+ upstream on the east bank and set the other end 200ft+ downstream of mouth on Andrus Island levee. This long diagonal deployment should allow oil to move past the mouth on both flood and ebb.

Strategy 2-814.2 Objective: Flood tide oil threats at the South mouth: deter oil entry by deflection into the channel and exclusion booming across mouth.

1. Set 600' 6X6+ exclusion boom across the mouth to maximize collection at most favorable shoreline for land collection (south margin has best access).
2. Deploy five 300' 6X6+ deflection booms from shore at a diagonal into mid-channel from locations downstream from mouth (beginning at bridge abutment).

Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect any oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-814.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. If oil accumulates as a result of strategy .2: station on-water skimmers to pickup deflected oil. Or, as an alternate, set two skimming boom configurations on bridge piers to feed two skimmers. Consult IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	tvpe and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment	staff deploy	Staff tend
2-814.1	1200			500	4	4/25lb/danforth	2	1				6	
2-814.2	2100				12	12/25lbs/danforth						7	
2-814.3	0	0	0	0	0		0	0	2	SSS/SPS 0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

The north mouth accessible by boat from marinas at Walnut Grove and the south mouth from marinas on the Mokelumne River. Both levees have all-weather, all-vehicle roads along most of their lengths: access from Walnut Grove or Isleton (0.5 mi north) to Isleton Road (Andrus Island) or Tyler Island Road (east side). This site extends from its upper mouth just downstream from the Walnut Grove bridge to its lower mouth on the Mokelumne just north of Hwy 12.

LAND ACCESS: UNRESTRICTED ACCESS THROUGHOUT

WATER LOGISTICS: GOOD WATER THROUGHOUT

Limitations: depth, obstruction

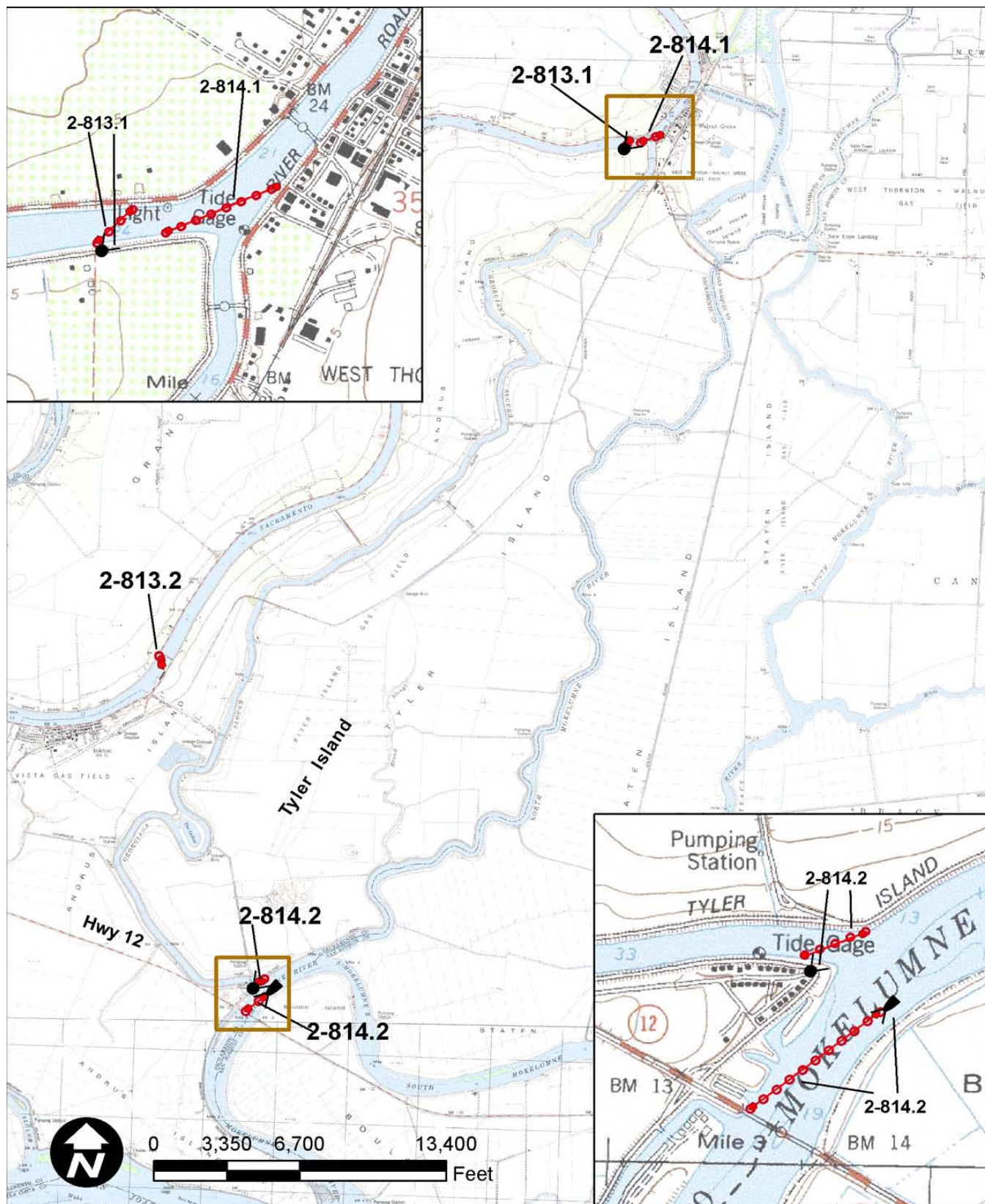
Launching, Loading, Docking and Services Available: Marina/Launch facilities are available at both mouths. Walnut Grove: Boathouse Marina and Walnut Grove Marina; Mokelumne at Hwy 12: B&W Marina, Spindrift Marina, Perry's Boat Harbor and others.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

A full range of facilities is available at Walnut Grove except for housing (though in limited quantity). Likewise at the southern mouth or nearby Rio Vista. Camping, cabins and motels are more available at south mouth.

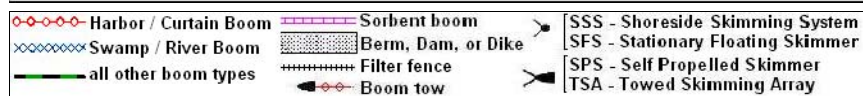
COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-813/2-814 Site Name: Sacramento River, Isleton-Walnut Grove Reach / Georgia Slough

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 2, 2011



County: **Sacramento**
 USGS Quad: **Courtland, Bruceville**

Thomas Guide Location

Latitude N
38 14.7

Longitude W
121 29.8

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

Site extends from its intersection of the Delta Cross Channel and the Sacramento River to Snodgrass Slough and then southward to the North Mokelumne River. It does not include upper Snodgrass Slough (see 2-916). The site includes the unnamed cut between Dead Horse Island and McCormick Island and Dead Horse Island which is a restored wetland. The Delta Cross Channel is key to managing flood flows and water quality in the Delta since it connects Sacramento River flows to the central Delta via the Mokelumne River. It is strategic to oil spill containment in the Sacramento River to avoid spread to the central Delta and the Snodgrass Slough complex of wetlands. The gates can cutoff flow through the channel, providing flood conditions do not demand through-flow.

The lower portion of Snodgrass Slough has rich marsh and riparian growth along its length including channel islands. This habitat is abounds with aquatic, marsh and terrestrial life.

SEASONAL and SPECIAL RESOURCE CONCERNS

This marshy area is of A-priority at all times. This is a strategic site for oil spill containment.

RESOURCES OF PRIMARY CONCERN

Shallow water wetlands are throughout the site. Many emergent and woody marshes and wetlands: mature riparian stands are common. The major concern here is spread of oil to other sensitive areas from the Sacramento River.

Area is important for migratory waterfowl and other waterbirds. Raptors, including Swainson's Hawk (F/CT), and riparian species are common.

This is outstanding habitat for semiaquatic mammals such as river otters, beavers, mink and muskrat. Amphibians abound. This may be habitat for western pond turtles.

This is within the zone of highest concern for winter-run chinook from mid September to June.

Emergent growth typifies this area.

No sensitive plant species have been recorded here.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-815 -A Site Strategy - Delta Cross Channel / Lower Snodgrass Slough

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-815 -A

Latitude N

Longitude W

38 14.7 121 29.8

Last Page Update :

7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Primary concern is to keep oil from spreading from Sacramento River to central Delta through this Channel. Failure to contain oil spread here will result in widespread spill impacts to many other sites, particularly neighboring sites and marshes within the site. Oil can penetrate into banks through invertebrate and mammal burrows and tree roots. Minimize wildlife disturbance and vegetation trampling - small endangered animal and plant species are found in this area.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires. Watercraft beware of snags and shallows. Pedestrian hazards include: Poison Oak, riprap, and thick vegetation.

SITE STRATEGIES

Strategy 2-815.1 Objective: Exclude oil from entering Delta Cross Channel

1. Contact Dept Water Resources and request closure of Delta Cross Channel gates. Back gates with sorbant.
2. If gates cannot be closed, deploy deflection-exclusion boom at mouth and upstream deflection booms:
(NOTE: Booming would likely be required only during flood periods when extreme water level fluctuations are common: booms must be rigged to content with level changes.)
 - a. deploy deflection boom across the Channel mouth into the flow of the Sacramento River in a shallow chevron configuration, to encourage oil to slide past mouth (600' 9x9+ exclusion-diversion boom);
 - b. Deploy two diversion booms from the east side upstream bank, to divert oil away from shoreline and into the center of the current. (500' 9x9+ each) This will require anchoring at both ends using multiple heavy anchors.

Strategy 2-815.2 Objective: Divert oil to shore for collection, if oil enters Delta Cross Channel from the Sacramento River.

Deploy two or more collection booms across channel on a long diagonal to land-based collection at favorable locales (600 ft of 6X6+ each). Anchor near shore leaving a trailing boom length to insure tidal seal. Back with sorbent boom. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate.

Strategy 2-815.3 Objective: If any oil enters site, execute exclusion 2-816.1 at mouth to upper Snodgrass Slough and wetland complex: execute

see Snodgrass Slough Complex strategy 2-816.

Strategy 2-815.4 Objective: Oil Recovery with shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. Move SBS skimming systems into the channel at favorable site to intercept oil if slicks are heavy as a result of strategy .2. Consult IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-815.1	1800			200	12	12/50lbs/danforth + chain + line	3	1				11	
2-815.2	0	1200	50 OS	700	4	4/25lb/danforths	1	1	2	portable		5	
2-815.3	0												
2-815.4	0	0	0	0	0		0	0	2	portable	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Vehicle access to the Cross Channel and Slough is the levee road along the north and south side of the Delta Cross Channel off of Hwy 160; it is unpaved and seasonal. Lower Snodgrass has an unpaved levee road on the Tyler Island shore. By water the site is accessible from the Sacramento River via the Delta Cross Channel or from the Walnut Grove Marina or from New Hope Landing.

Though traffic is only possible when Cross Channel gates are open: gates restrict the height of craft which can pass under. Site extends from its intersection of the Delta Cross Channel and the Sacramento River to Snodgrass Slough and then southward to the North Mokelumne River. It does not include upper Snodgrass Slough (see 2-916). The site includes the unnamed cut between Dead Horse Island and McCormick Island and Dead Horse Island which is a restored wetland.

LAND ACCESS: LEVEE MAY BE GOOD WHEN DRY

WATER LOGISTICS: GOOD AT MOUTH EXCEPT IN SHALLOW AREAS

Limitations: depth, obstruction

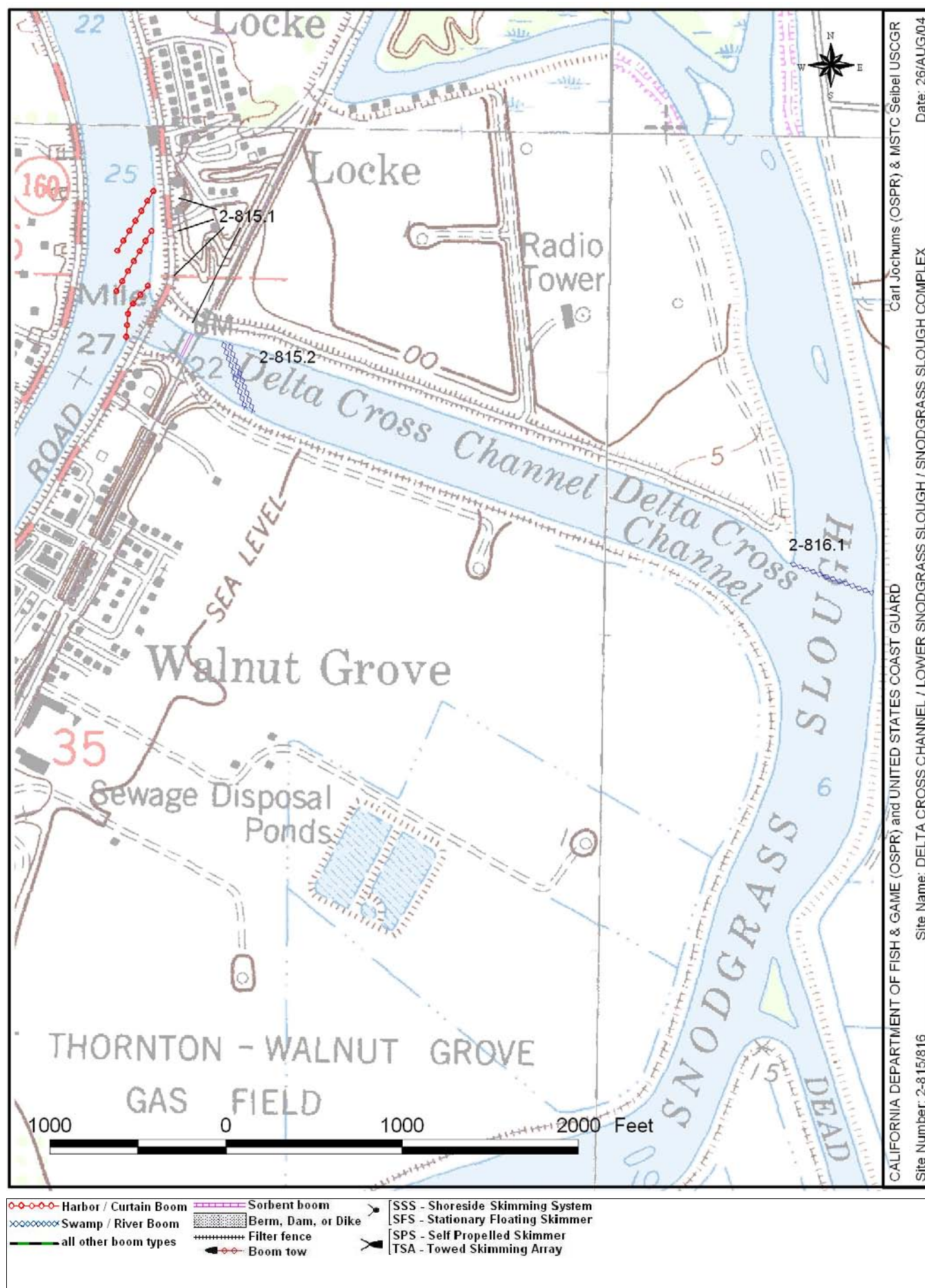
Launching, Loading, Docking and Services Available: There are several boat launches on each side of the Cross Channel gates: including Boat House, Walnut Grove Marina, New Hope Landing.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

The Cross Channel levees are adequate for land deployment and local staging. Walnut Grove has a wide variety, though limited quantity of resources. Delta Protection Commission Office has phone and fax resources.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
 USGS Quad: **Courtland, Bruceville**

Thomas Guide Location

Latitude N
38 14.7

Longitude W
121 29.8

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from its intersection with the Delta Cross Channel northerly to its various extremities including the Stone Lake complex. The site includes the many adjacent marshes. Snodgrass Slough and its many joining sloughs are an extensive complex of marshes and wetlands that span from the Sacramento levee on the west and north to the Cosumnes River on the east to the Mokelumne River levee on the south and to Stone Lake to the north. It has extremely rich marsh and riparian growth throughout its length including many channel islands and adjacent marshes. Very little has intact levees. It has many shallows and snags. This habitat is abounds with aquatic, marsh and terrestrial life. It is a DMRP designated Natural Resource Area with Significant Habitat Values and a DFG/NHD designated Significant Natural Area. It is a DMRP scenic area and includes portions of Delta Meadows/Lock State Park.

SEASONAL and SPECIAL RESOURCE CONCERNS

This marshy area is of "A" priority at all times. This is an extremely sensitive area.

RESOURCES OF PRIMARY CONCERN

Shallow water wetlands are throughout the site. Many emergent and woody marshes and wetlands: mature riparian stands are common.

Area is of major importance to migratory waterfowl and other waterbirds. Raptors, including Swainson's Hawk (F/CT), and riparian species are abundant.

This is outstanding habitat for semiaquatic mammals such as river otters, beavers, mink and muskrat. Amphibians abound. This may be western pond turtles.

It is within the zone of medium concern for winter-run chinook from mid September to June.

Emergent growth typifies this area.

California hibiscus occurs here.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TL	Ron Breen	CA Dept. of Parks & Recreation	(916) 445-7373
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-816 -A Site Strategy - Snodgrass Slough Complex

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-816 -A

Latitude N Longitude W

38 14.7 121 29.8

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is that oil will enter this extensive network of marshes on a flood tide from the Delta Cross Channel. Penetration of oil into wetlands. Penetration of oil into banks through invertebrate and mammal burrows and tree root channels.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires. Watercraft beware of snags and shallows. Pedestrian hazards include: Poison Oak, riprap, and thick vegetation.

SITE STRATEGIES

Strategy 2-816.1 Objective: Exclude oil from moving from/to Snodgrass complex through Delta Cross Channel

Contact Dept Water Resources and request closure of Delta Cross Channel gates. Back gates with sorbent. Deploy 500 ft of 6X6+ curtain boom from north corner of Delta Cross Channel-Snodgrass Slough diagonally southeasterly across Snodgrass Slough. Anchor near shore leaving a trailing boom length to insure tidal seal. Back with sorbent boom.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-816.1	0	500		200	2 2/25lb/danforths	1	1				

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Vehicle to the slough mouth is the levee road along the north side of the Delta Cross Channel off of Hwy 160; it is unpaved an seasonal. There is very little vehicular access. By water the site is accessible from the Sacramento River via the Delta Cross Channel or from the Walnut Grove Marina or from New Hope Landing. Site extends from its intersection with the Delta Cross Channel northerly to its various extremities including the Stone Lake complex. The site includes the many adjacent marshes.

LAND ACCESS: LEVEE MAY BE GOOD WHEN DRY

WATER LOGISTICS: GOOD AT MOUTH EXCEPT IN SHALLOW

Limitations: depth, obstruction

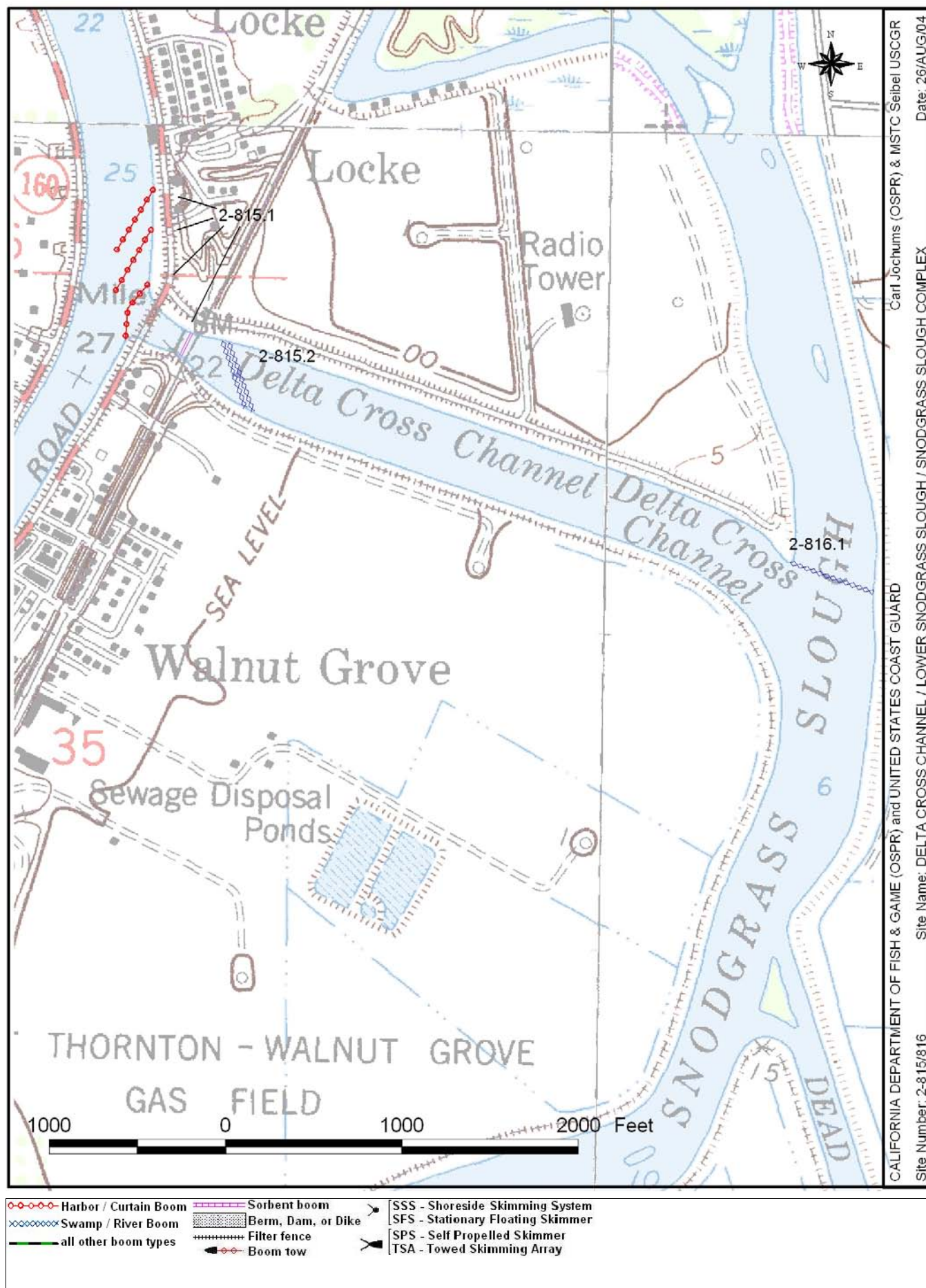
Launching, Loading, Docking and Services Available: There are several boat launches on each side of the Cross Channel gates: including Boat House, Walnut Grove Marina, New Hope Landing.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

The Cross Channel levees are adequate for land deployment and local staging. Walnut Grove has a wide variety, though limited quantity of resources. Delta Protection Commission Office has phone and fax resources.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
 USGS Quad: **Courtland, Bruceville**

Thomas Guide Location

Latitude N
 3 8 20

Longitude W
 121 30

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Old overflow basins, with diversity of habitat types; lakes, freshwater marshes, riparian trees and bushes, grassland, quiet sloughs.

SEASONAL and SPECIAL RESOURCE CONCERNS

The site is an "A" priority year-round. Several Special Status Species occur here.

RESOURCES OF PRIMARY CONCERN

This extensive freshwater marsh system is good habitat for marsh birds and mammals of all kinds. This is nesting and foraging habitat for all manner of waterfowl and marsh birds. The marsh also supports a wide diversity of marsh mammals and other vertebrates. Specialized habitat for the threatened and endangered giant garter snake, and the slough thistle. Great Blue Heron and Egret rookeries. One of the most important ecological complexes in the Delta. The area is of major importance to migratory waterfowl. Many archaeological sites.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There is an archeological site here. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-818 -A Site Strategy - Stone Lake Complex

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-818 -A

Latitude N

Longitude W

3 8 20

121 30

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

HAZARDS and RESTRICTIONS:

Boat traffic beware of shallows, many snags and mud bars. Poison Oak.

SITE STRATEGIES

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
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LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access: Highway 160 from Walnut Grove or Sacramento to Hood Franklin Rd. Go east on Hood Franklin Rd. to Stone Lake complex.

LAND ACCESS:

WATER LOGISTICS:

Limitations: depth, obstruction

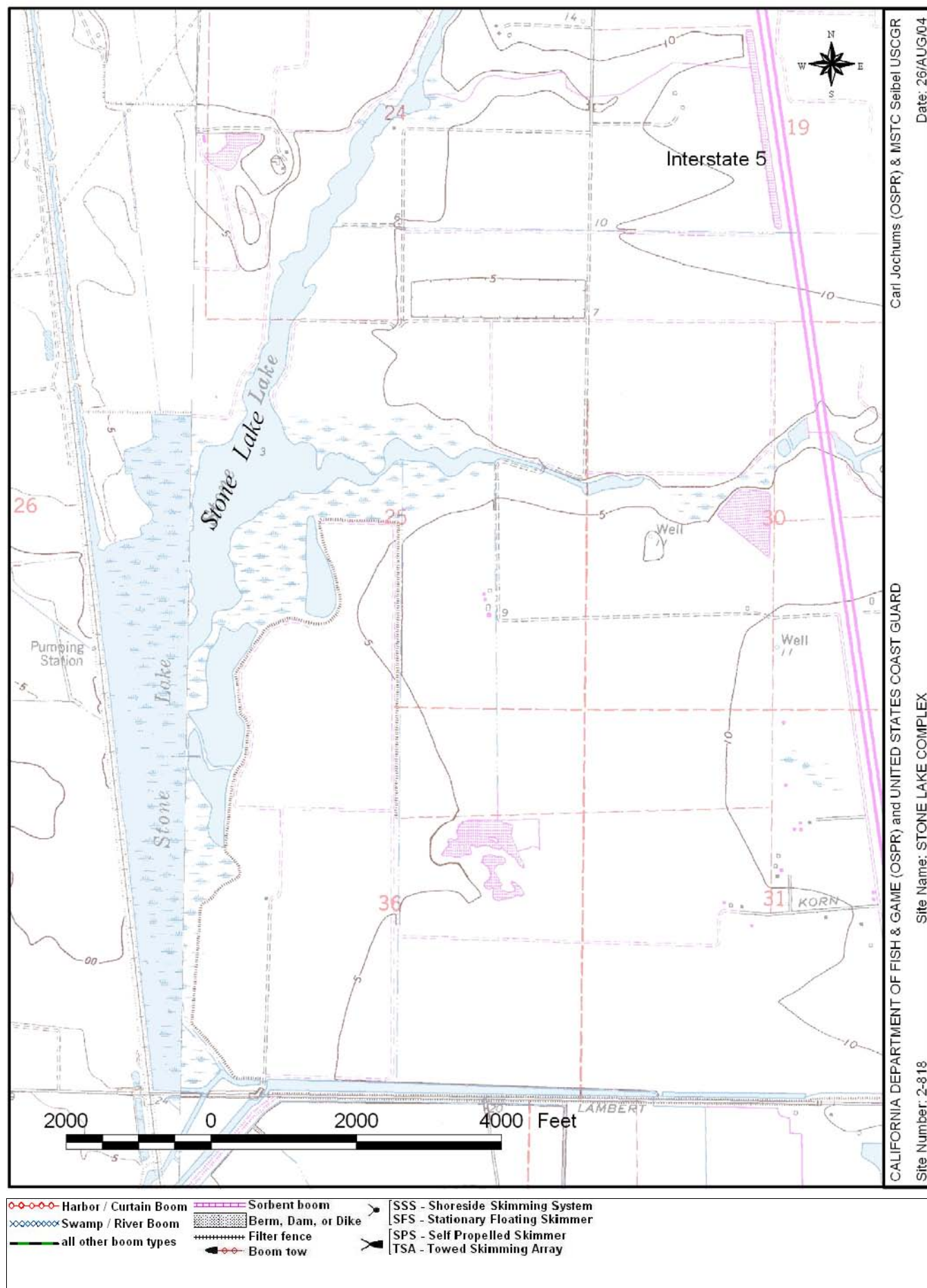
Launching, Loading, Docking

and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
 USGS Quad: **Clarksburg, W Sacramento, Courtland**

Thomas Guide Location
 NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N
 3 8 21
 Longitude W
 121 32

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site extends from Sacramento (the Hwy 50 bridge over the Sacramento River) downstream to the Delta Cross Channel at Walnut Grove. This site is fully leveed along its length with riprap. Most of the riparian vegetation has been removed though remnants remain. Occasional sandy beaches and emergent vegetation are found in the upper portion. It is deep and has a strong flow. It is heavily fished throughout the year and particularly when migratory fish are present: salmon, steelhead, American Shad and striped bass. Several significant channels branch off: Steamboat Slough, Sutter Slough, Delta Cross Channel, Sacramento Ship Channel Locks.

SEASONAL and SPECIAL RESOURCE CONCERNS

Winter run chinook (F/CE) must pass through this site from September through May. High concentrations of migratory fish are present at various times of the year.

RESOURCES OF PRIMARY CONCERN

Occasional riparian and emergent growths and steep levees and riprap are the habitats available. The aquatic habitat is CRITICAL to many migratory species of fish including all the salmonid stocks for the Sacramento Valley, striped bass, American Shad, and Sacramento splittail.

Swainson's hawk (FSC/CT) frequent this site at multiple locations. This channel is of moderate importance to many other bird species.

In addition to resident warmwater species, this is CRITICAL Habitat to migratory species of fish. All the migratory fish of the Sacramento Valley use this corridor or reside here for some portion of their life cycle. These include: all the steelhead and salmon stocks (including winter-run chinook (F/CE)), American shad, striped bass, white and green sturgeon, and Sacramento splittail (F/CSC).

This area is commercially fished for crayfish.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-820 -AC Site Strategy - Sacramento River, Courtland-Sacramento Reach

2-820 -AC

County and Thomas Guide Location

NOAA CHART

Latitude N

Longitude W

Sacramento

18662 SACRAMENTO RIVER

3 8 21

121 32

Last Page Update :

7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into riprap and beaver and invertebrate burrows is likely. Petroleum products are liable to be pumped to neighboring ag lands. Toxic effects on fish life.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of power wire crossings over the River; ALSO, TV towers in Walnut Grove area are a severe aerial hazard. Levee roads are narrow with narrow or no shoulders. Steep ripped levees are a hazard to motorists and foot traffic. High boat traffic use and general public use.

SITE STRATEGIES

Strategy 2-820.1 Objective: Diversion to collection at Miller Park sandy beaches, for oil in the River above the locks

1. Prepare beach just down stream from marina mouth for oil collection: preclean beach.
2. Set a diversion boom at a long diagonal across the river to land oil on beach near marina mouth. Lay 3000 ft of 6X6+ diversion boom from west bank levee to the east side beach. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. If oil accumulates in skimmable quantites contact IC.
3. Block marina 400ft 4X4+ with curtain boom. Back with sorbent as necessary.
4. Block the river mouth of the Channel locks. Block with 1000ft of 4X4+ exclusion boom. Back with 300 ft of sorbent boom.

Strategy 2-820.2 Objective: Divert to collection at a favorable location where logistics and prevailing conditions permit oil interception and collection.

Deploy deflection booms across main channel on a long diagonal to divert oil onto most favorable riverbank for collection. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. If oil accumulates in skimmable quantites contact IC.

Strategy 2-820.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. Consult IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-820.1	0	4400		700	7	7/50lbs/danforth anchors	2	1				25	
2-820.2	0	3000	50 OS	100	7	7/50 lb/danforth, 200ft line	2	2				8	
2-820.3	0	0	0	0	0		0	0	2 portable	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Sacramento River is accessible by boat from a number of marinas throughout its length. Both levees have all weather, all vehicle roads along most of its length, including Hwy 160. This site extends from Sacramento (the Hwy 50 bridge over the Sacramento River) downstream to the Delta Cross Channel at Walnut Grove.

LAND ACCESS: UNRESTRICTED ACCESS THROUGHOUT

WATER LOGISTICS: GOOD WATER THROUGHOUT

Limitations: depth, obstruction

Launching, Loading, Docking

and Services Available:

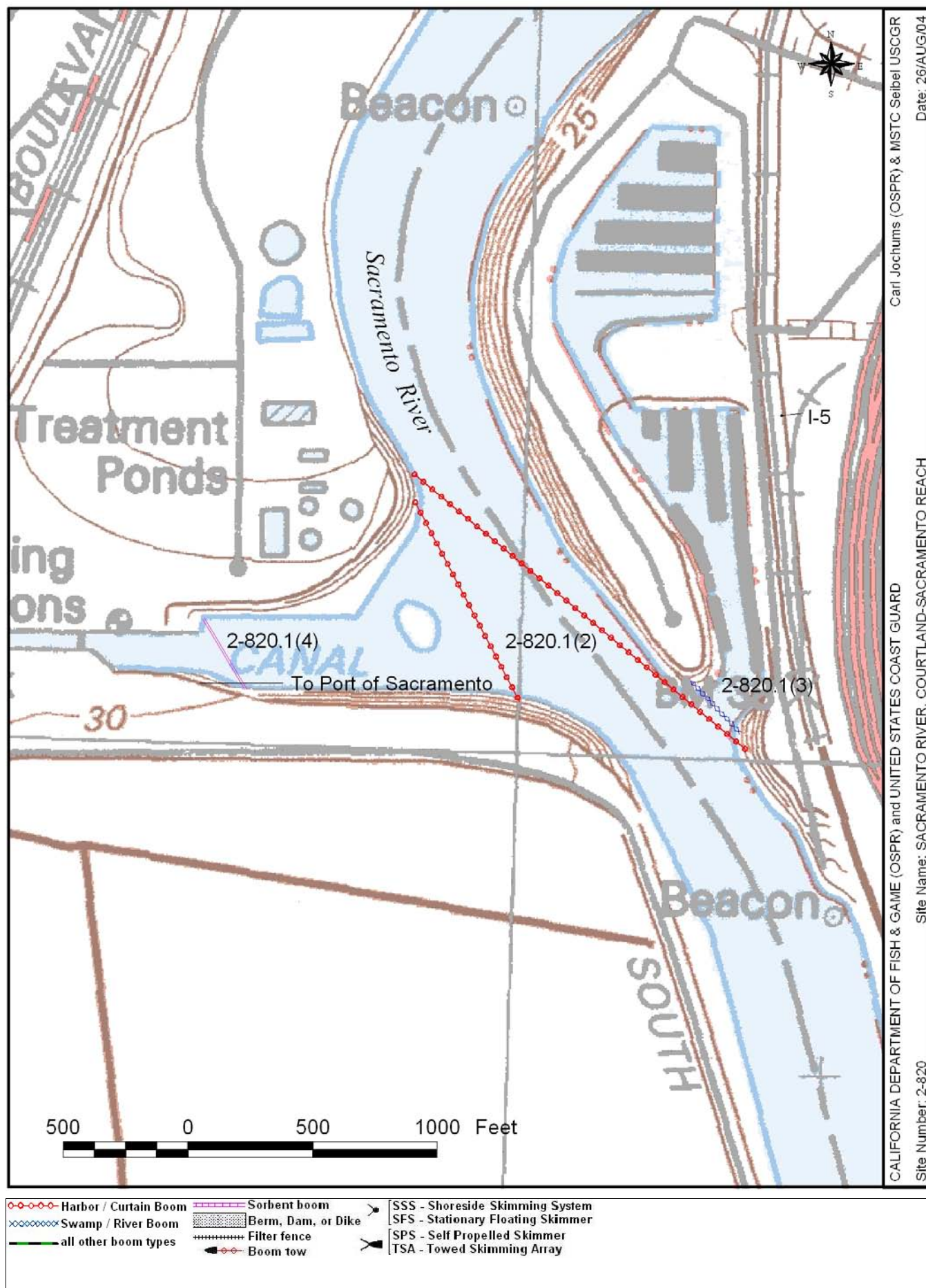
Sacramento Marina and Miller Park boat ramp provide numerous boat launching opportunities. A crane was observed on west shore in the channel lock compound. Various marinas along river.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Excellent staging areas at marina and park. Amenities include launch facility, fuel docks, large paved staging area, restrooms, electricity, lights and nearby pay phones. Small towns along river provide limited services.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento, Solano**
 USGS Quad: **Courtland, Isleton, Rio Vista**

Thomas Guide Location

Latitude N
38 18.3

Longitude W
121 34.5

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from its mouth on the Sacramento River near Courtland to its mouth on Cache Slough at the tips of Grand and Ryer Islands. Sutter Slough connects at mid-length. This Slough is a north-south (shortcut) side channel of the Sacramento River. It has abrupt steep levees with occasional water side benches and beaches. Much of its length is ripped but it has mature and shrub-scrub riparian growth at its northerly and southerly reaches. The southerly portion has been designated (DMRP and DFG/NHD) as having outstanding habitat values. The site is a DMRP designated scenic area.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian growths here have "A" priority year around. Significant and Special Status Species occur here, including important fish stocks, an endangered fish and three rare plants.

RESOURCES OF PRIMARY CONCERN

Dense riparian and emergent growths in the north and south reaches are very significant and sensitive. Riprap and grassy steep levees in mid portion. The aquatic habitat is CRITICAL to many migratory species of fish including a high proportion of the salmonid stocks for the Sacramento Valley, striped bass, American shad, and Sacramento splittail.

Swainson's hawk (FSC/CT) frequent this site at multiple locations. This channel is of moderate importance to many other bird species.

In addition to resident warmwater species, this is CRITICAL habitat to migratory species of fish. A high proportion of the migratory fish of the Sacramento Valley use this corridor or reside here for some portion of their life-cycle. These include: all the steelhead and salmon stocks (including winter-run chinook (F/CE)), American shad, striped bass, white and green sturgeon, and Sacramento splittail (F/CSC). There is very great concern for winter-run chinook smolts from mid-September through May.

This channel is commercially fished for crayfish.

Riparian growth is of key importance here. Sensitive plant species present include: Mason's lilaeopsis (FSC/CR), Delta tule pea (F/CSC), Sanford's arrowhead (F/CSC).

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-830 -A Site Strategy - Steamboat Slough

County and Thomas Guide Location

Sacramento, Solano

NOAA CHART

18662 SACRAMENTO RIVER

2-830 -A

Latitude N Longitude W

38 18.3 121 34.5

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into riprap and into levees via invertebrate, muskrat and beaver burrows. Penetration and potential impacts to riparian habitats.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires and TV towers in Walnut Grove vicinity. Narrow road, narrow bridges, and narrow shoulders with riparian vegetation makes this site a dangerous hazard. Traffic control should be implemented at this site. Bridge height is 14' 6". Narrow road and narrow shoulders creates a hazardous situation. Loose footing near water.

SITE STRATEGIES

Strategy 2-830.1 Objective: Exclusion/diversion to collection at the Sacramento mouth: divert it to shore-side collection.

1. Lay 600' 6X6 deflection boom from a point up the Sacramento from marina docks above the mouth at a downstream 45 degree angle to mid-channel to divert oil away from slough mouth. Back with sorbent.
2. Deploy exclusion-collection boom across Steamboat Slough at a slight angle to take advantage of eddying along the north bank.
3. Deploy absorbent booms behind exclusionary booms to capture oil streamers.
4. Establish land-based collection unit to collect accumulating oil. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil begins to accumulate in skimmable quantities.

Strategy 2-830.2 Objective: Exclusion/deflection booming Steamboat Slough south mouth on Cache Slough on incoming tides.

Set 500' 9x9+ diversion/exclusion boom in a shallow chevron to shunt oil past mouth and simultaneously block its entry. Anchor near shore and leave a trailing boom length to insure tidal seal. Back with sorbent boom.

Strategy 2-830.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmer if oil accumulates in skimmable quantities. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-830.1	0	1300	50 OS	600	7	3/25lb+4/40lb/danforth	1	1				9	
2-830.2	500			500	5	5/25lb/danforth	1	1				5	
2-830.3	0	0	0	0	0		0	0	1 SSS	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By water, site is accessible via its northerly mouth on the Sacramento River just south of Sutter Slough (Courtland) or via its southerly mouth just east of the Ryer Island Ferry (hwy 84) on Cache Slough. Best vehicle access is Grand Island Road off Hwy 160. Site extends from its mouth on the Sacramento River near Courtland to its mouth on Cache Slough at the tips of Grand and Ryer Islands. Sutter Slough connects at mid-length.

LAND ACCESS: ALL WEATHER/ALL TRAFFIC ROADS

WATER LOGISTICS: DEEP, FEW SNAGS OR SHALLOWS

Limitations: depth, obstruction

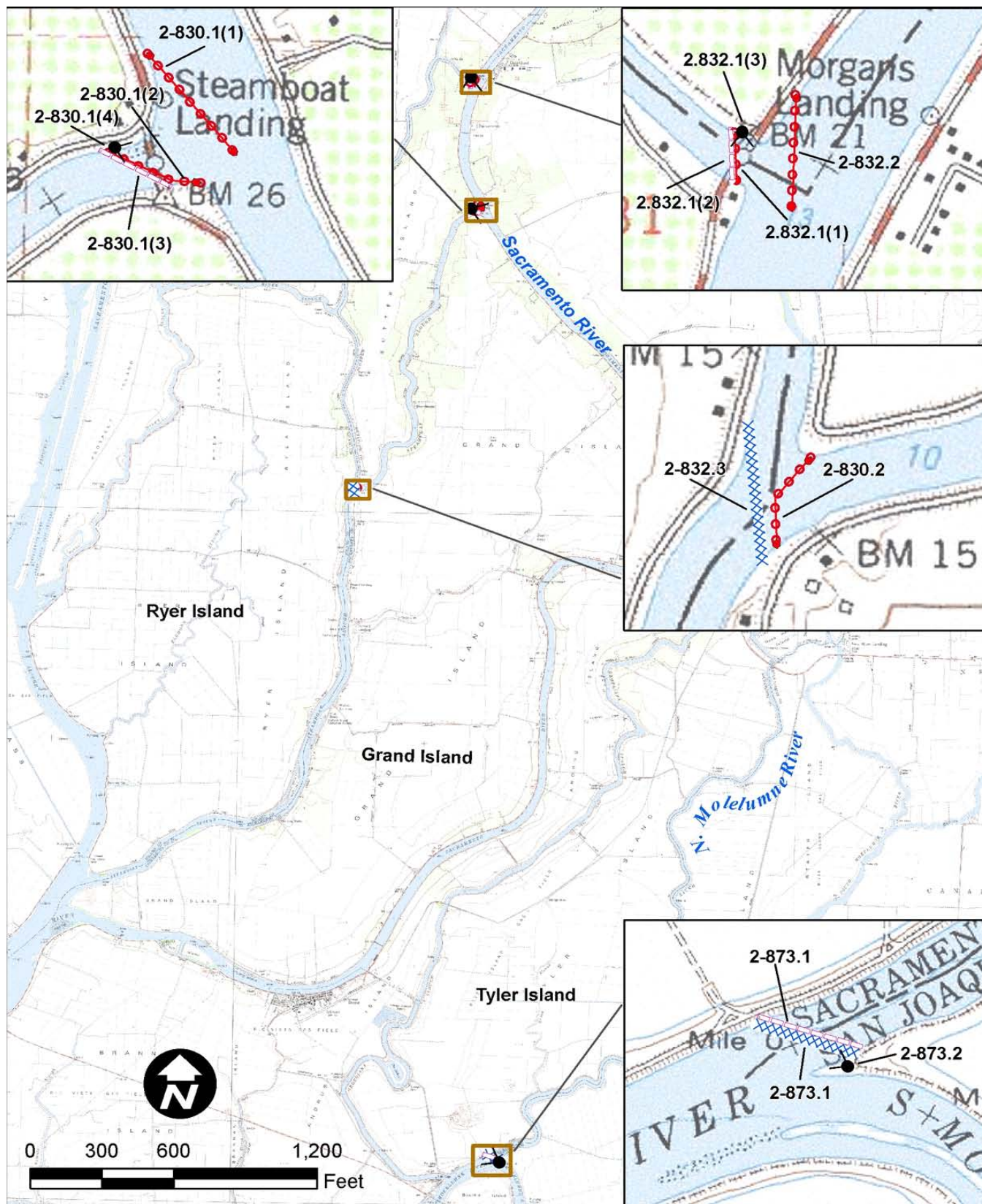
Launching, Loading, Docking and Services Available: Courtland Docks and Morgan Landing closest northerly boating facility. Snug Harbor, Rio Vista or Real McCoy ferry landing are nearest launch point to south.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Steamboat Landing is the nearest facility. Small front parking lot available but not convenient for large-scale deployment. Stairs available for beach access. Hidden Harbor and Snug Harbor closest facilities. Rio Vista has best service for south mouth. Deployment at south mouth may be staged at ferry landing or local marinas.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



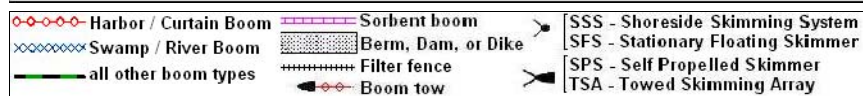
CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD

Site: 2-830 / 2-832 / 2-873

Site Name: Steamboat Slough / Sutter Slough / N. Mokelumne River

Craig Haffner (OSPR) & Greg Ewing (OSPR)

Date: March 3, 2011



County: **Sacramento, Solano, Yolo County**
 USGS Quad: **Courtland**

Thomas Guide Location

Latitude N

Longitude W

38 19.7

121 34.5

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Sutter Slough is a side channel of the Sacramento River and flows to Steamboat Slough. It is bordered on the east side by Sutter Island. It is relatively narrow slough with mature and shrub-scrub riparian growth mix along steep and partially ripped levees. Strong currents are common; the channel is deep though encroached upon by riparian growth. Several significant side sloughs intersect: Elk Slough and Miner Slough. This is an important pathway for migratory fish.

SEASONAL and SPECIAL RESOURCE CONCERNS

This riparian area is of "A" priority at all times. Winter-run chinook smolts are of great concern from Sept through May.

RESOURCES OF PRIMARY CONCERN

Dense riparian and emergent growths in the northerly part; less so in southerly half. The aquatic habitat is CRITICAL to many migratory species of fish including all the salmonid stocks for the Sacramento Valley, striped bass, American Shad, and Sacramento splittail.

Area is to migratory waterfowl and other waterbirds. Raptors and riparian species are abundant, particularly Swainson's hawk (F/CT). Good habitat for riparian birdlife.

In addition to resident warmwater species, this is CRITICAL Habitat to migratory species of fish. A portion of the migratory fish of the Sacramento Valley use this corridor or reside here for some portion of their life cycle. These include: all the steelhead and salmon stocks (including winter-run chinook (F/CE)), American shad, striped bass, white and green sturgeon, and Sacramento splittail (F/CSC).

This channel is fished commercially for crayfish.

There are numerous stands of elderberry making this potential habitat for (FT) valley elderberry longhorned beetle.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-832 -AB Site Strategy - Sutter Slough

County and Thomas Guide Location

Sacramento, Solano, Yolo County

NOAA CHART

18662 SACRAMENTO RIVER

2-832 -AB

Latitude N

Longitude W

38 19.7 121 34.5

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into riprap and also into levees via invertebrate and beaver burrows. Difficult cleanup of riparian vegetation. Toxicity to riparian growth and migratory fish.

HAZARDS and RESTRICTIONS:

Narrow road, narrow bridge, and narrow shoulders with riparian vegetation makes this site a dangerous hazard. Traffic control should be implemented at this site. Aerial traffic should note power wire crossings and TV towers in the vicinity.

SITE STRATEGIES

Strategy 2-832.1 Objective: Exclude oil and divert to shore for collection, for oil threats to Sacramento mouth.

1. Deploy exclusion-collection boom across Sutter Slough mouth using the bridge pier as anchor point. Deploy at an angle to take advantage of local eddy (which tends to be inside mouth along northside levee).
2. Deploy double sorbent booms behind exclusionary booms to capture oil streamers.
3. Establish land based collection of oil. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-832.2 Objective: For oil threats from upstream, deflection boom above the Sacramento mouth to keep oil to mid channel and away from mouth.

From a point 300 feet upstream from mouth on the west bank of the Sacramento River, deploy 600ft of 6X6+ deflection boom to mid channel at a 45 degree angle.

Strategy 2-832.3 Objective: exclusion boom at the south mouth on Steamboat Slough.

Deploy 500' 6X6+ boom across the mouth. Anchor one end 100' up Steamboat slough near the Sutter Island levee and the other downstream from the mouth, leaving trailing boom lengths to ensure a tidal seal.

Strategy 2-832.4 Objective: Oil Recovery by Shoreside skimming

Deploy skimmer if oil accumulates in skimmable quantities. Consult IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-832.1	0	500	50 OS	1100	2	2/25lb danforth anchors	0	1				6	
2-832.2	0	600			3	3/40lb/danforths	0	1				3	
2-832.3	0	500		100	2	2/25lb/danforth	0	1				2	
2-832.4	0	0	0	0	0		0	0	1 SSS	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By water, Sutter Slough branches off the Sacramento River just south of Courtland and rejoins Steamboat Slough at mid-length. The all weather levee road on Sutter Island is accessible from Hwy 160 opposite Courtland. Sutter Slough is a side channel of the Sacramento River and flows to Steamboat Slough. It is bordered on the east side by Sutter Island.

LAND ACCESS: ALL WEATHER ROAD ON SE LEVEE

WATER LOGISTICS: GOOD DEEP WATER PER CHART

Limitations: depth, obstruction

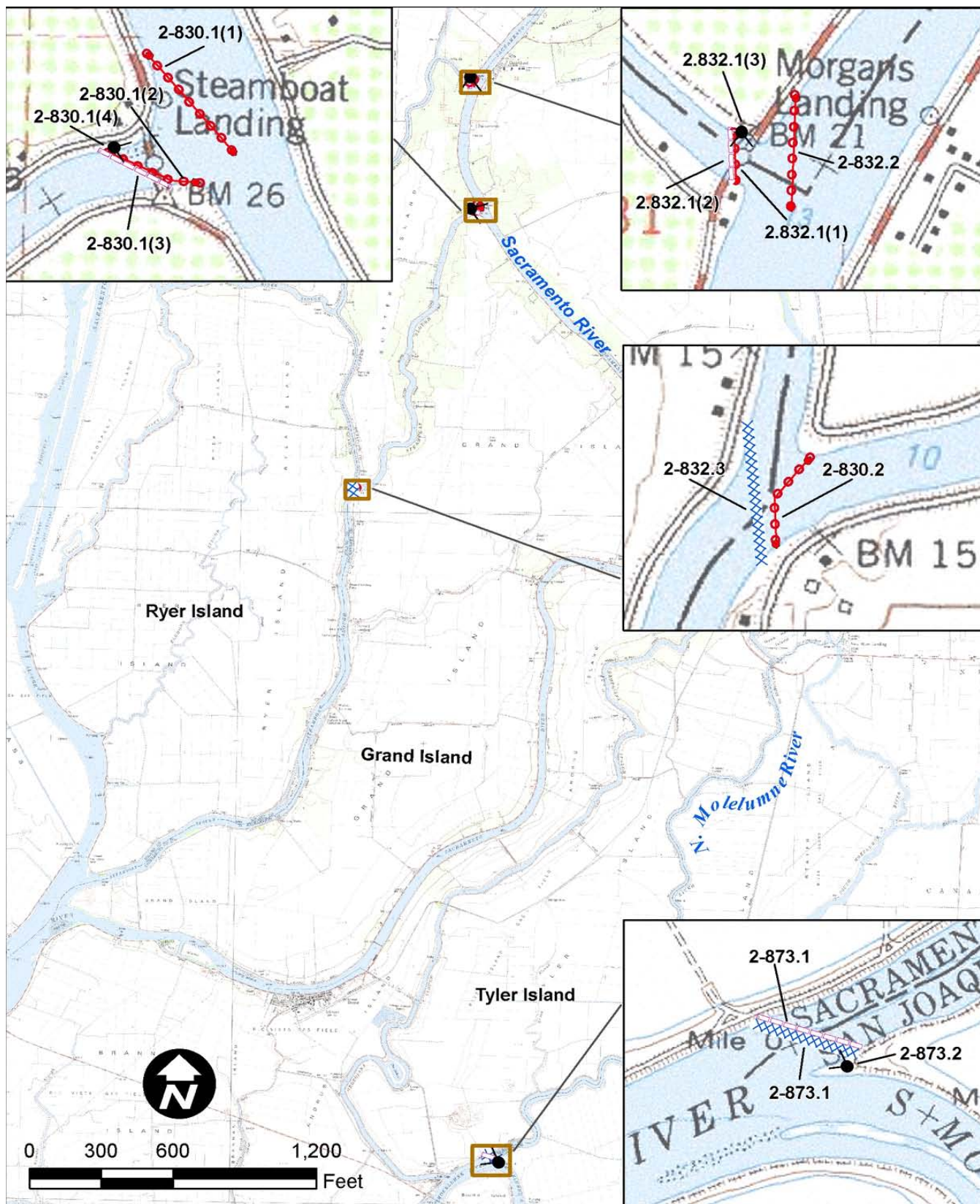
Launching, Loading, Docking and Services Available: Courtland Docks and Morgan Landing closest boating facility at northerly mouth. Steamboat Landing, Hog Island or Snug Harbor on Steamboat Slough are closest to southerly mouth.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Courtland Docks are the nearest facilities. Large front parking lot available but not convenient for large-scale deployment.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



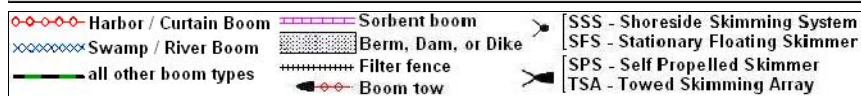
CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD

Site: 2-830 / 2-832 / 2-873

Site Name: Steamboat Slough / Sutter Slough / N. Mokelumne River

Craig Haffner (OSPR) & Greg Ewing (OSPR)

Date: March 3, 2011



County: Yolo

Thomas Guide Location

Latitude N

Longitude W

3 8 20

121 35

USGS Quad: Courtland, Clarksburg

NOAA Chart: 18662 SACRAMENTO RIVER

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from its mouth on Sutter Slough to its terminus 11 miles to the north at the Sacramento River levee road. Though once a throughway it is now a dead-end slough with extensive mature riparian forest and growth along its banks. It is shallow and full of snags. It is premium wildlife and warmwater fish habitat. It provides snags and cavities, a habitat type which has become rare in the Delta. It is used extensively by riparian birds, waterbirds and wildlife.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy/riparian areas such as this have "A" priority year-round.

RESOURCES OF PRIMARY CONCERN

Rich and extensive riparian habitat. Many snags providing suitable habitat for waterbirds and aquatic vertebrates.

Very important area for riparian species, waterbirds and other migratory waterfowl.

This site is capable of supporting the full array of riparian wildlife including deer, fox, mustellids, beaver, muskrat, western pond turtle, etc.

Superb area for largemouth bass and panfish. It is also within the zone frequented by relatively high numbers of downstream migrant winter-run chinook.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Cultural sites have been identified here. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-834 -A Site Strategy - Elk Slough

County and Thomas Guide Location

Yolo

NOAA CHART

18662 SACRAMENTO RIVER

2-834 -A

Latitude N

Longitude W

3 8 20

121 35

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The objective is to keep this habitat from becoming contaminated by excluding oil. If oil gets in this slough there are problems of infiltration of oil into thick riparian habitat or into levees via invertebrate, beaver and muskrat burrows.

HAZARDS and RESTRICTIONS:

Narrow road, narrow shoulders, thick vegetation, deep water and fast flow at mouth creates a hazardous situation. Traffic control should be implemented at this site. Aerial traffic should be alert to overhead power wires in the area and the TV towers nearby.

SITE STRATEGIES

Strategy 2-834.1 Objective: Exclude oil from entering Elk Slough

Execute Sacramento River Sutter Slough mouth strategy. Then set exclusion boom across the mouth or outside the mouth at an angle to minimize oil movement into the slough. Anchor near shore leaving a trailing length to maintain a seal during tidal fluctuations. Back with sorbent boom.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-834.1	100	200		70	2 2/15lb/danforth anchors	0	1			2	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Water access is from the Sacramento River via Sutter Slough a half mile west to the mouth of Elk Slough. Paved vehicle access is Waukeena Rd, the west levee road, intersecting Courtland Road near Jefferson Blvd. East levee roads are private (Merritt Isl.). Site extends from its mouth on Sutter Slough to its terminus 11 miles to the north at the Sacramento River levee road.

LAND ACCESS: WEST BANK: ALL TRAFFIC/ALL-WEATHER

WATER LOGISTICS: CURRENT AND SNAGS

Limitations: depth, obstruction

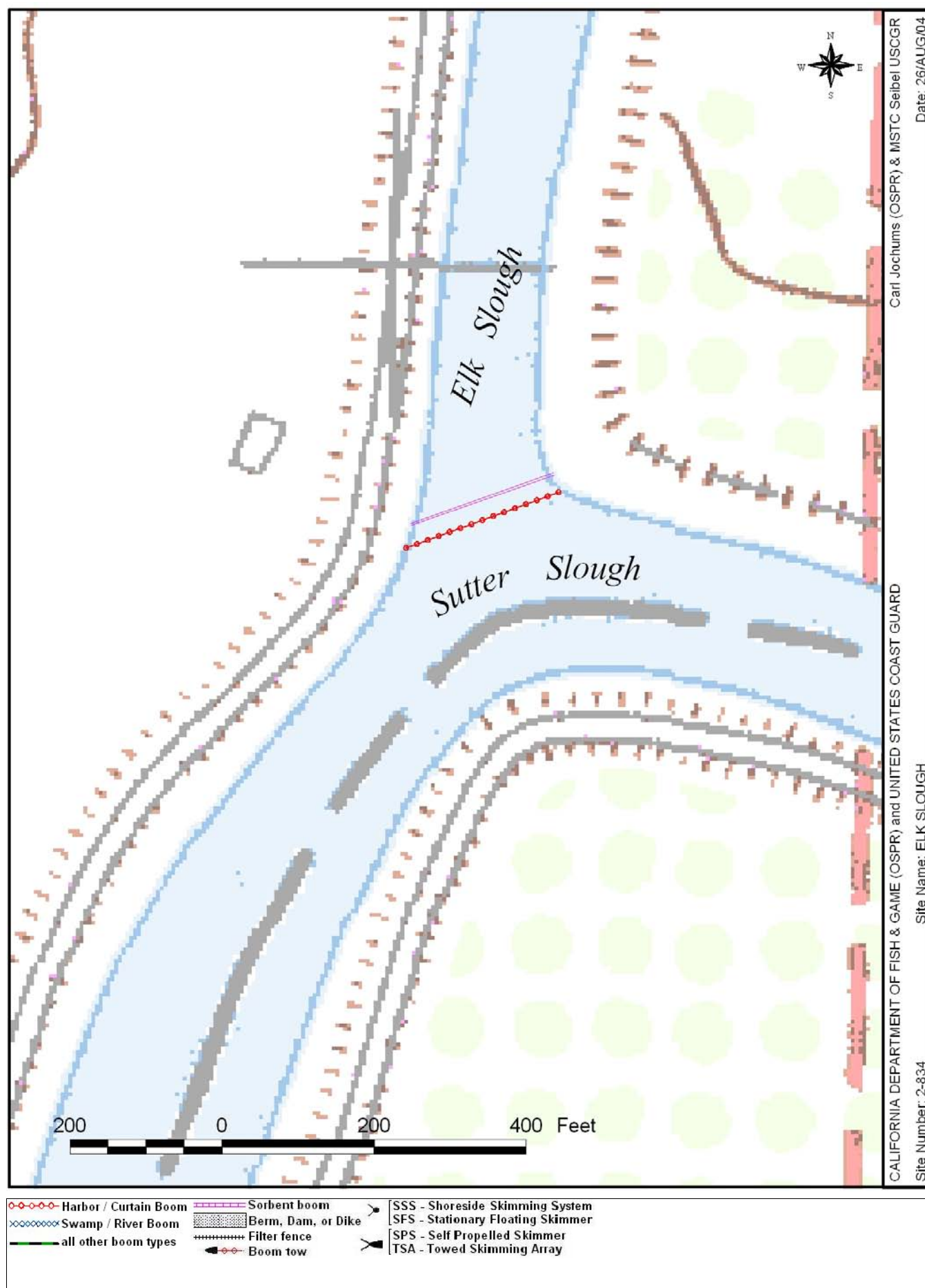
Launching, Loading, Docking and Services Available: Courtland Docks and Morgan's Landing.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Same as Steamboat and Sutter Sloughs.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: Solano

Thomas Guide Location

Latitude N

Longitude W

USGS Quad: Liberty Island, Dozier, Rio Vista

38 14.6

121 41.5

NOAA Chart: 18662 SACRAMENTO RIVER

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from its mouth on Cache Slough (about 1.5 miles west of the Sacramento Deep Water Channel) about 4.5 miles to its terminus plus several miles of three minor sloughs and marshes at its terminal end including Hastings Cut, Calhoun Cut, Wright Cut and Barker Slough. This winding marshy dead-end slough has rich marsh and riparian growth throughout its length including channel islands. Both banks are leveed and ripped. It has many shallows and snags. This habitat is rich in aquatic, marsh and terrestrial life. It is a DMRP designated Natural Resource Area with Significant Habitat Values and a DFG/NHD designated Significant Natural Area.

SEASONAL and SPECIAL RESOURCE CONCERNS

This marshy area is of "A" priority at all times. This is prime Delta smelt spawning area. Winter-run chinook smolts are of great concern from Sept. through May.

RESOURCES OF PRIMARY CONCERN

Shallow water wetlands are prominent throughout the site. Many of the small levees that surround the wetlands have low spots and perforations which allow considerable water exchange.

Area is of major importance to migratory waterfowl and other waterbirds. Raptors and riparian species are abundant.

This is outstanding habitat for semiaquatic animals such as river otters, beavers, mink, muskrat and amphibians.

Lindsey Slough is a major spawning area for Delta smelt (F/CT). It is also in the zone of highest concern for winter-run chinook from mid-September to June.

Emergent growth typifies this area.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
OL	State Water Project Ops C	CA Dept. of Water Resources	(916) 574-2714
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-840 -A Site Strategy - Lindsey Slough

County and Thomas Guide Location

Solano

NOAA CHART

18662 SACRAMENTO RIVER

2-840 -A

Latitude N

Longitude W

38 14.6

121 41.5

Last Page Update :

7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The intention is to protect this extensive marsh -riparian area by excluding oil. Infiltration of oil into wetlands. Penetration of oil into levee, riprap and banks by animal burrows and tree root channels.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires. Watercraft beware of snags and shallows. Pedestrian hazards include: Poison Oak, riprap, and thick vegetation.

SITE STRATEGIES

Strategy 2-840.1 Objective: Exclusion/deflection to keep oil in main ship channel and prevent oil from entering reaches of upper Cache, Miner, Prospect, and Lindsey Sloughs.

Execute Cache Slough strategies.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
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2-840.1

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LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Vehicle access is levee road 7 miles north from Rio Vista via Hwy 84. By water from Rio Vista north up the Sacramento River and then 1.5 miles west of the Sacramento Deep Water Channel along the westerly bank. Site extends from its mouth on Cache Slough (about 1.5 miles west of the Sacramento Deep Water Channel) about 4.5 miles to its terminus plus several miles of three minor sloughs and marshes at its terminal end including Hastings Cut, Calhoun Cut, Wright Cut and Barker Slough.

LAND ACCESS: LEVEE ROAD GOOD WHEN DRY

WATER LOGISTICS: GOOD EXCEPT SNAGS AND SHALLOWS

Limitations: depth, obstruction

Launching, Loading, Docking

and Services Available:

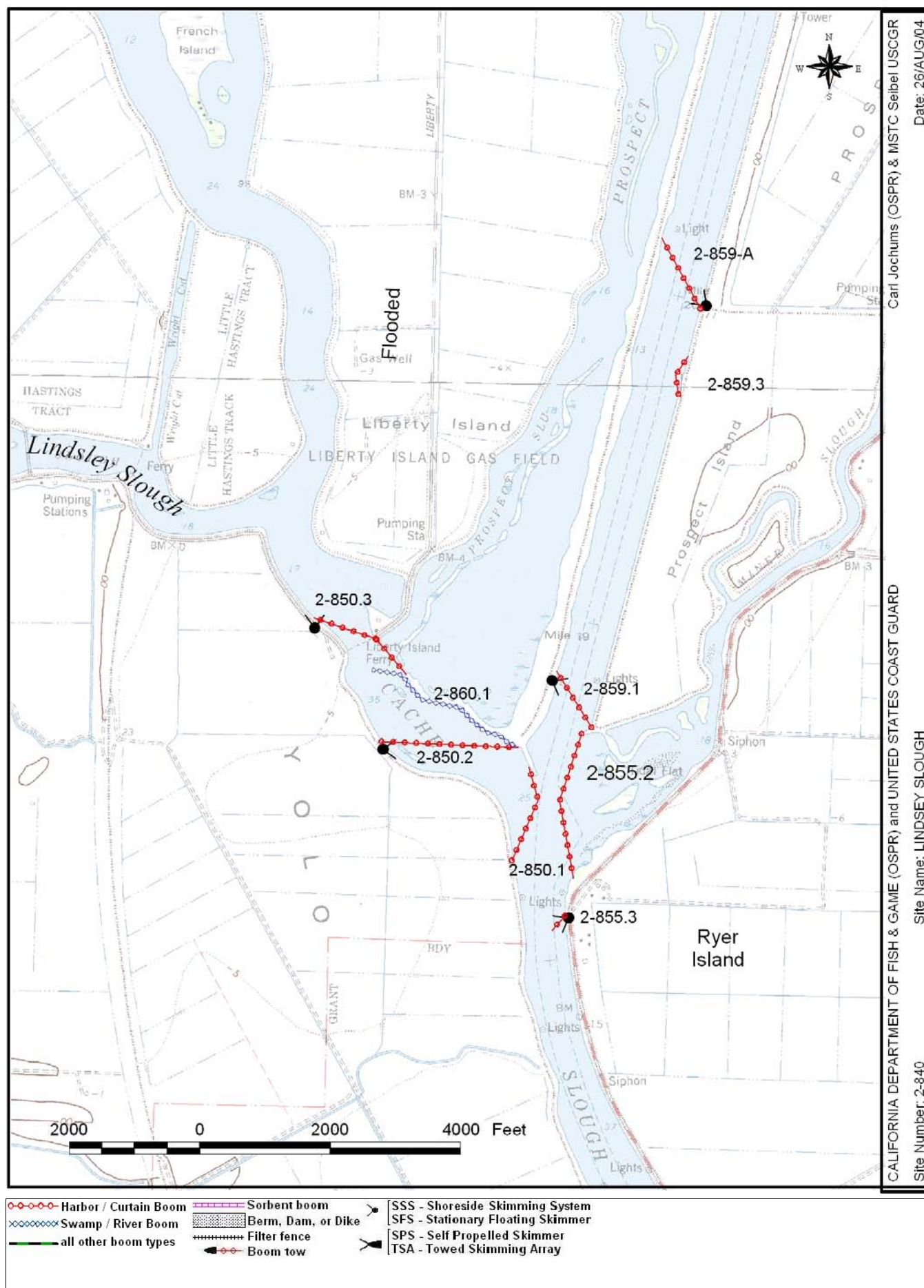
Private boat launch on east side (near Miner Slough Mouth) but needs to be cleared prior to use. "Real McCoy Ferry" (Hwy 84) can be used as a launch site. Launch, moorage and fuel are also available at Steamboat Slough and Rio Vista.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Real McCoy Ferry has large deployment site. Another deployment site is past mouth of Prospect Slough but access is limited. Rio Vista has a full range of support facilities.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Solano**

Thomas Guide Location

Latitude N

Longitude W

38 14.2

121 40.8

USGS Quad: **Liberty Island, Dozier, Rio Vista**NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from the mouth of the Sacramento River Deep Water Channel about 8 miles to its terminus plus several more miles of smaller sloughs (Haas Slough and Shag Slough) and many minor sloughs and marshes (20+ miles total). This winding, marshy, dead-end slough has rich marsh and riparian growth throughout its length including channel islands. Both banks are leveed and ripped in places. It has many shallows and snags. This habitat is rich in aquatic, marsh and terrestrial life. It is a Delta Master Recreational Plan designated Natural Resource Area with Significant Habitat Values and a DFG/NHD designated Significant Natural Area.

SEASONAL and SPECIAL RESOURCE CONCERNS

This marshy area is of "A" priority at all times. This is prime Delta smelt spawning area. Winter-run chinook smolts are of great concern from Sept through May.

RESOURCES OF PRIMARY CONCERN

Shallow water wetlands are prominent throughout the site. Many of the small levees that surround the wetlands have low spots and perforations which allow considerable water exchange. This important habitat for Delta smelt spawning.

Area is of major importance to migratory waterfowl and other waterbirds. Raptors and riparian species are abundant.

This is outstanding habitat for semiaquatic mammals such as river otters, beavers, mink, muskrat and amphibians.

Cache Slough is a major spawning area for delta smelt (F/CT).

It is also in the zone of highest concern for winter run chinook from mid September to June.

Emergent growth typifies this area.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
OL	State Water Project Ops C	CA Dept. of Water Resources	(916) 574-2714
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-850 -A Site Strategy - Cache Slough

County and Thomas Guide Location

Solano

NOAA CHART

18662 SACRAMENTO RIVER

2-850 -A

Latitude N Longitude W

38 14.2 121 40.8

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

This sensitive site is best protected by excluding oil from entering by exclusion booming and deflection to collection near mouth. Infiltration of oil into wetlands and penetration into levees, riprap, and banks.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires. Watercraft beware of snags and shallows. Pedestrian hazards include: Poison Oak, riprap, and thick vegetation.

SITE STRATEGIES

Strategy 2-850.1 Objective: Deflection/exclusion to keep oil in main ship channel and prevent oil from entering reaches of upper Cache, Miner, Prospect, and Lindsey Sloughs.

- Power down water transfer pumps upstream in Lindsey Slough (at Barker Slough - DWR.)
- Deploy deflection boom keep oil in Ship Channel. From inside the Deep Water Channel mouth, lay 12X12+ curtain boom in a shallow chevron parallel to the Ship Channel and across upper Cache on the west and Miner Slough on the east.

Strategy 2-850.2 Objective: exclusion/to confinement/collection across Cache Slough at Prospect Slough mouth

Deploy 1200' 10x10+ curtain boom across Cache Slough to exclude oil from entering upper sloughs and direct it to shore for collection. Lay boom from south cable-ferry landing opposite Prospect Slough mouth diagonally east across Cache Slough to north bank near Ship Channel Mouth. Anchor near shore with overlap of north bank and trailing boom ends to maintain tidal seal. If conditions permit, collect oil on the south levee. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate.

Strategy 2-850.3 Objective: CHANGE to 860 exclusion boom at Lindsey Slough mouth

Deploy 1200' 9x9+ curtain boom from north ferry cable-ferry landing at mouth of Prospect Slough diagonally west across Cache Slough to the levee near the mouth of Lindsey Slough. Anchor near shore leaving, trailing boom ends to maintain tidal seal. If conditions permit, collect oil with on the south levee. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Execute Prospect Slough strategy.

Strategy 2-850.4 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. Collect oil with land-based skimmer on the south levee, back with sorbent if oil presence is great as a result of strategy .2. Oil collection with a land based skimmer may also be used to collect oil as a result of strategy .3. Consult with IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	tvpe and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment	staff deploy	Staff tend
2-850.1	1500				5	/50lb/danforth anchors	2	1				8	
2-850.2	2000		50 OS	100	6	22lb/danforths	2	2					
2-850.3	1200			1000	5	25lb/danforths	2	1				8	
2-850.4	0	0	0	0	0		0	0	2SSS	0			

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Vehicle access to the mouth is levee road 6 miles north from Rio Vista via Hwy 84. Other levee roads are less accessible. By water from Rio Vista north up the Sacramento River and lower Cache Slough to the mouth of the Sacramento Deep Water Ship Channel. Site extends from the mouth of the Sacramento River Deep Water Channel about 8 miles to its terminus plus several more miles of smaller sloughs (Haas Slough and Shag Slough) and many minor sloughs and marshes (20+ miles total).

LAND ACCESS: PAVED AT MOUTH ELSE DRY WEATHER

WATER LOGISTICS: GOOD EXCEPT SNAGS AND SHALLOWS

Limitations: depth, obstruction

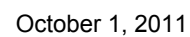
Launching, Loading, Docking and Services Available: Private boat launch on east side (near Miner Slough Mouth) but needs to be cleared prior to use. Real McCoy Ferry (Hwy 84) can be used as a launch site. Launch, moorage and fuel are also available at Steamboat Slough and Rio Vista.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Real McCoy Ferry has large deployment site. Another deployment site is past mouth of Prospect Slough but access is limited. Rio Vista has a full range of support facilities.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Solano**
 USGS Quad: **Courtland, Isleton, Rio Vista**

Thomas Guide Location

Latitude N

Longitude W

3 8 14

121 40

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extends from its mouth on the Sutter Slough southwest of Courtland to its mouth on Cache Slough near the mouth of the Sacramento Deep Water Ship Channel. This Slough is another side channel of the Sacramento River. It has abrupt steep levees with occasional water side benches and beaches. Much of its length is ripped but it has mature and shrub-scrub riparian growth at points throughout and particularly at southerly reaches where there are channel islands and extensive open marshes. The southerly portion has been designated (DMRP and DFG/NHD) as having outstanding habitat values. The site is a DMRP designated scenic area. There are breaks in the levee which allow flow to the interior of Prospect Island.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian growths here have "A" priority year around. Significant and Special Status Species occur here, including important fish stocks, an endangered fish and three rare plants.

RESOURCES OF PRIMARY CONCERN

There are very significant and sensitive dense riparian and emergent growths in the south reaches and in spots in the north portion. Riprap and grassy, steep levees typify the mid and northerly portion. The aquatic habitat is CRITICAL to many migratory species of fish including a high proportion of the salmonid stocks for the Sacramento Valley, striped bass, American shad, and Sacramento splittail. Extensive riparian habitat.

Swainson's hawk (FSC/CT) frequent this site. This channel is of moderate importance to many other bird species particularly marsh and waterbirds.

Portions of the marshy margin are very valuable habitat for marsh animals.

In addition to resident warmwater species, this is CRITICAL habitat to migratory species of fish. A high proportion of the migratory fish of the Sacramento Valley use this corridor or reside here for some portion of their life-cycle. These include: all the steelhead and salmon stocks (including winter-run chinook (F/CE)), American shad, striped bass, white and green sturgeon, and Sacramento splittail (F/CSC). There is very great concern for winter-run chinook smolts from mid-September through May.

This channel is commercially fished for crayfish.

Riparian growth is of key importance here. Sensitive plant g □ species present include: Mason's lilaeopsis (FSC/CR).

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-855 -A Site Strategy - Miner Slough

County and Thomas Guide Location

Solano

NOAA CHART

18662 SACRAMENTO RIVER

2-855 -A

Latitude N

3 8 14

Longitude W

121 40

Last Page Update :

7/1/1996

CONCERNS and ADVICE to RESPONDERS:

Infiltration of oil into riprap and into levees via invertebrate, muskrat and beaver burrows. Infiltration of oil into thick riparian habitat. Beaver burrows may be present.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires and TV towers in Walnut Grove vicinity. Narrow road, narrow bridges, and narrow shoulders with riparian vegetation makes create hazards. Traffic control should be implemented at this site. Narrow road, narrow shoulders, thick vegetation, and deep water creates a hazardous situation. Traffic control should be implemented at this site.

SITE STRATEGIES

Strategy 2-855.1 Objective: Exclude oil from entering north mouth at Sutter Slough by deploying diversion/exclusion oil to shunt oil past mouth.

1. Deploy strategy for Sutter Slough (2-832) path of oil slick and Steamboat Slough path, ie. stop it from getting near mouth.
2. Deploy additional exclusion-diverson boom across narrow entrance of Miner Slough: 200' 6X6+ curtain boom from well upstream of mouth on Sutter Slough to well downstream. Anchor with trailing boom length to maintain tidal seal. Back with sorbent boom. Good site for land-based deployment.

Strategy 2-855.2 Objective: Deter oil entry into south mouth at Cache Slough using deflection/exclusion booming at mouth. See Cache Slough primary strategy.

See Cache Slough strategy. Additional strategy may be needed.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	Boat type and gear	Boom boat	Skiffs punts	Skimmers No	Special Equipment or comment	staff deploy	Staff tend
2-855.1	0	200		150	4	4 anchors					2	
2-855.2	0											

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By water, site is accessible via its northerly mouth on Sutter Slough (Courtland) or via its southerly mouth just east of the Ryer Island Ferry (Hwy 84) on Cache Slough. Best vehicle access is Hwy 84 which is the Ryer Island levee road 7 miles north of Rio Vista. Site extends from its mouth on the Sutter Slough southwest of Courtland to its mouth on Cache Slough near the mouth of the Sacramento Deep Water Ship Channel.

LAND ACCESS: ALL WEATHER/ALL TRAFFIC ROADS

WATER LOGISTICS: DEEP BUT RIPARIAN GROWTH THICK

Limitations: depth, obstruction

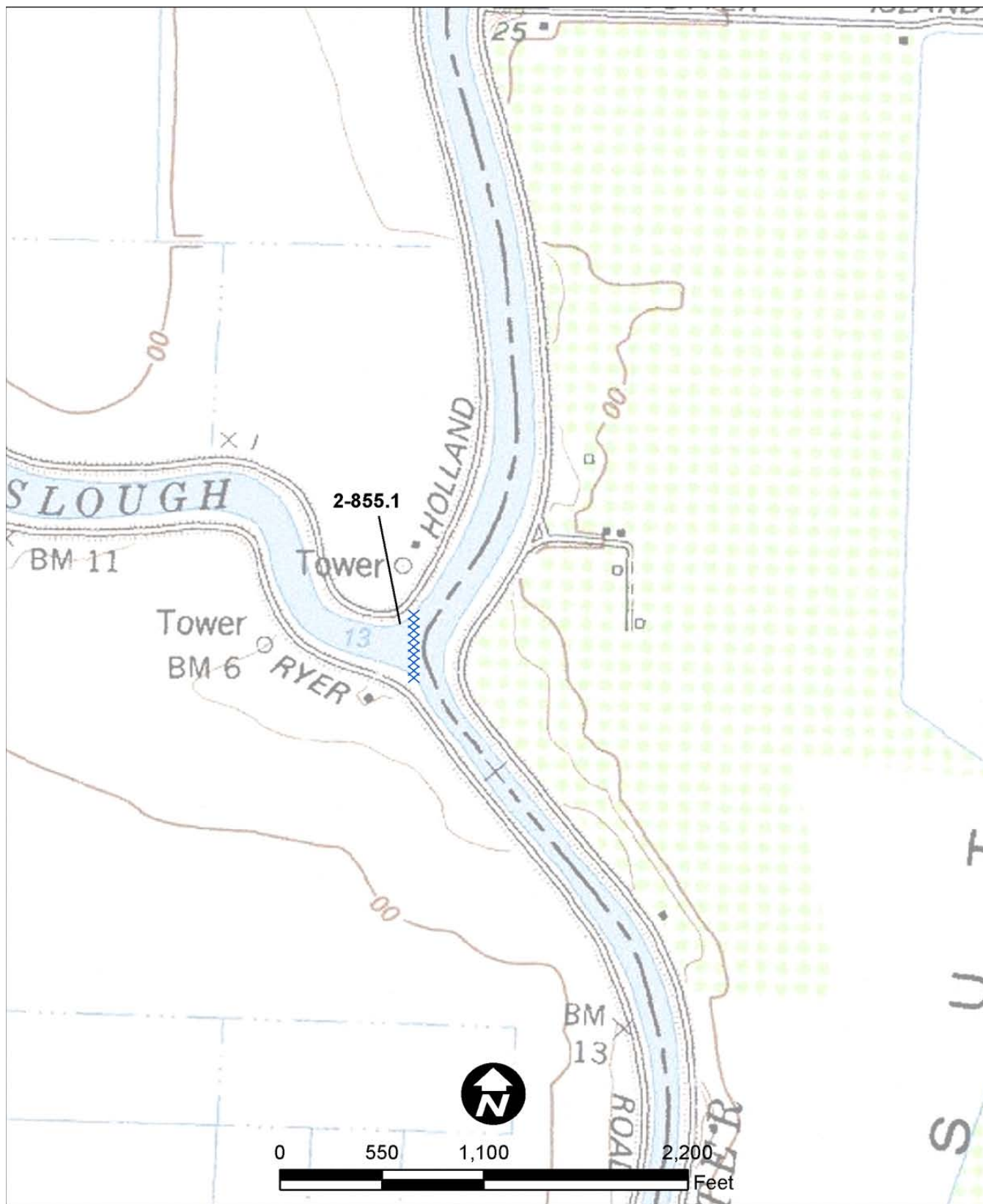
Launching, Loading, Docking Arrowhead Marina at NW corner of Ryer Island.
and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

At upper mouth, deploy from levee: nearest facility is Arrowhead Marina. Lower mouth, deploy from ferry or from deployment sites on south bank or Cache Slough or ferry landing. Use Rio Vista facilities.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-855 Site Name: Miner Slough

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 7, 2011

<ul style="list-style-type: none"> Harbor / Curtain Boom Swamp / River Boom all other boom types 	<ul style="list-style-type: none"> Sorbent boom Berm, Dam, or Dike Filter fence Boom tow 	<ul style="list-style-type: none"> SSS - Shoreside Skimming System SFS - Stationary Floating Skimmer SPS - Self Propelled Skimmer TSA - Towed Skimming Array
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County: **Sacramento**
USGS Quad: **West Sacramento, Liberty Island**

Thomas Guide Location

Latitude N
38 14.3

Longitude W
121 40.3

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

Site extends from the Port of Sacramento to its mouth on Cache slough. This is an artificially constructed deep channel for ships to access the Port. Although relatively narrow and artificial, the margin is emergent marsh along its entire length with occasional shrub-scrub. Conjoined to the west of the port facilities is the remnant Lake Washington which has several acres of tule-cattail marsh.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy areas are high priority at all times.

RESOURCES OF PRIMARY CONCERN

The site has marshy margins with occasional shrub-scrub throughout its length. Anadromous fish use this slough for upstream migration.

A large variety of waterbirds use this area.

The habitat is suitable for semiaquatic species including beavers, muskrat, amphibians, etc.

Salmon and other migratory species concentrate in this channel during migratory periods.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-859 -B Site Strategy - Sacramento River Deep Water Ship Channel

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-859 -B

Latitude N Longitude W

38 14.3 121 40.3

Last Page Update : 7/1/2005

CONCERNS and ADVICE to RESPONDERS:

Concern here is that should an oil spill occur in the ship channel, the oil should remain contained in the channel. The channel itself is also lined with marshes which are vulnerable to oiling: penetration of oil into marshy margins and into the levee via beaver, muskrat and invertebrate burrows.

HAZARDS and RESTRICTIONS:

Slips, trips and falls. Aerial traffic be aware there are overhead wires in this area.

SITE STRATEGIES

Strategy 2-859.1 Objective: For oil threat from Cache Slough, divert to shore for stranding & collection inside and near the mouth of the channel using prevailing wind

Set diversion/exclusion boom across the mouth of the ship channel at a diagonal from its windward tip to a leeward shore in the vicinity of R52 or G51. Strand oil on bank and set up collection. If oil is escaping past this collection point, back with sorbent and set up a second diversion/collection boom. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-859.2 Objective: Exclusion of Lake Washington (east of Port) and deflection to shoreside confinement

- Contact lock control to keep locks shut.
- Establish collection/diversion booming at best locations along ship channel or along basin shoreline as follows: booms diagonally across channel to collectionsites. Back last boom with sorbent. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.
- boom off Lake Washington (west end of port) with 700 ft of small boom 4x4+
- Prepare to execute Lindsey, Prospect and Miner Sloughs Strategies if oil advances downstream.

Strategy 2-859.3 Objective: Oil Recovery with shoreside skimming

Deploy skimmer if oil accumulates in skimmable quantities. Consult with IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-859.1	1300		50 OS	1400	5 5/25lb/danforths	2	1	1		8	
2-859.2	2000	700	50 OS	1100	5 9/22+/-danforths& stakes	2	1		10 stakes	8	
2-859.3	0	0	0	0	0	0	0	4SSS	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

By water the Ship Channel may be reached from Cache Slough 7 miles north of Rio Vista or from the Port of Sacramento. Land access is possible on seasonal levee roads on each side of the Channel: access is restricted and may be reached from various routes on Prospect Isl. or at the Port. Site extends from the Port of Sacramento to its mouth on Cache slough.

LAND ACCESS: ALL VEHICLES IN DRY CONDITIONS

WATER LOGISTICS: ANY VESSEL.

Limitations: depth, obstruction

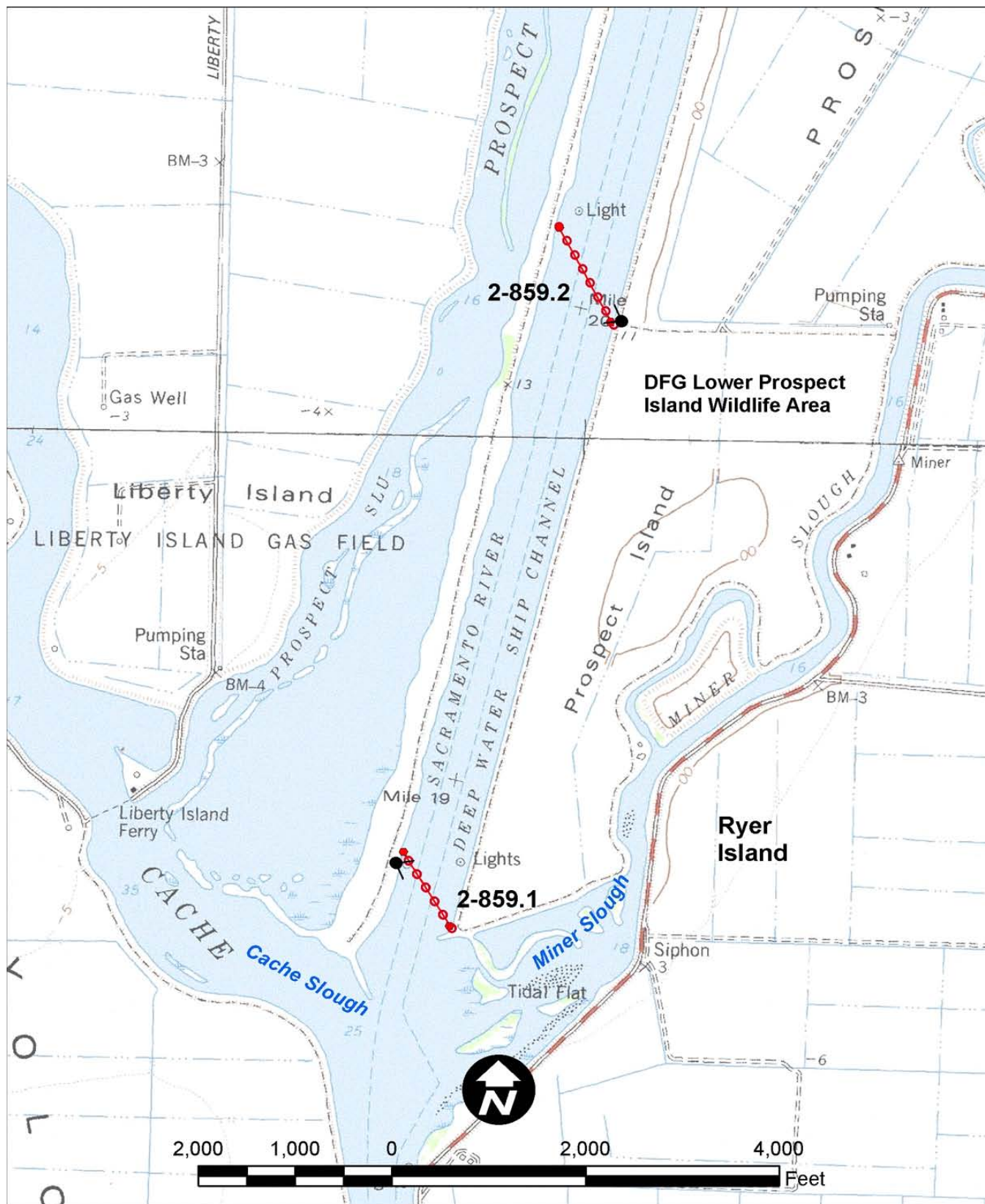
Launching, Loading, Docking and Services Available: Boat launch and marine support are available at Snug Harbor (Steamboat Slough mouth) or Rio Vista.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

The Ryer Island Ferry landing or the Port would be good deployment sites. Considerable facilities are available at either Rio Vista or the Port.

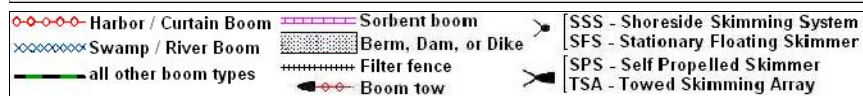
COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-859 Site Name: Sacramento River Deep Water Ship Channel

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 2, 2011



County: **Solano**
 USGS Quad: **Liberty Island, Dozier, Rio Vista**

Thomas Guide Location

Latitude N

38 14.5

Longitude W

121 40.9

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/2005

SITE DESCRIPTION:

This site includes Prospect Slough and marshes on both sides near its mouth as well as its upstream tributaries and Liberty Island which is flooded and has a large opening on Cache Slough just to the west of Prospect Slough mouth but multiple openings on Prospect and Shag Sloughs as well. Included are over 3000 acres in Libert Island and 10 miles of marshy/riparian waterways and adjacent marshes. Ownership is not clear at this time. This winding, marshy, dead-end slough has extremely rich marsh and riparian growth throughout its length including channel islands. Portions are leveed but much is not. It has many shallows and snags. This habitat is rich in aquatic, marsh and terrestrial life. Liberty Island flooded in 2000 and has been evolving as a cattail-tule marsh ever since. The Sloughs are DMRP designated Natural Resource Area with Significant Habitat Values and a DFG/NHD designated Significant Natural Area. It is very scenic. This site is the outlet for the Yolo Bypass.

SEASONAL and SPECIAL RESOURCE CONCERNS

This marshy area is of "A" priority at all times. This is prime Delta smelt spawning area. Winter-run chinook smolts are of great concern from Sept through May.

RESOURCES OF PRIMARY CONCERN

Shallow water wetlands are prominent throughout the site. Many emergent and woody marshes and wetlands. Mature riparian stands. Important spawning habitat for Delta smelt.

Area is of major importance to migratory waterfowl and other waterbirds. Raptors and riparian species are abundant.

This is outstanding habitat for semiaquatic mammals such as river otters, beavers, mink and muskrat.

Prospect Slough is a major spawning area for Delta smelt (F/CT). It is also in the zone of highest concern for winter-run chinook from mid-September to June. This is an important smolt rearing area when the Yolo Bypass floods.

Emergent growth typifies this area.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
OL	State Water Project Ops C	CA Dept. of Water Resources	(916) 574-2714
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-860 -A Site Strategy - Prospect Slough and Liberty Island

County and Thomas Guide Location

Solano

NOAA CHART

18662 SACRAMENTO RIVER

2-860 -A

Latitude N

Longitude W

38 14.5

121 40.9

CONCERNS and ADVICE to RESPONDERS:

Last Page Update :

This is an extensive marsh / riparian area (including the 3000+ acres inside Liberty Island) which can be best protected by excluding or deflecting oil to collection at the mouth to avoid penetration of oil into wetlands. Penetration of oil into banks through invertebrate and mammal burrows and tree root channels. Minimize disturbance of wildlife and trampling vegetation; there are small endangered plants and animals in the area.

HAZARDS and RESTRICTIONS:

Aerial traffic beware of overhead power wires. Watercraft beware of snags and shallows. Pedestrian hazards include: Poison Oak, riprap, and thick vegetation.

SITE STRATEGIES

This site is the outlet of the Yolo Bypass and has heavy downstream flows when the Sacramento River is bypassing. Flood flows are magnified by the flooding of Liberty Island. Currents at levee breaks can be formidable.

Strategy 2-860.1 Objective: exclusion boom Prospect Slough mouth and marsh and upper Cache Slough openings to Liberty Isl.

Exclude oil from traveling into Prospect Slough, Liberty Island and nearby marshes.

A. Execute strategy 2-850.3 Exclusion to shore confinement/collection to keep oil from moving up Cache Slough and entering levee breaks in Liberty Island.

B. across open water of the mouth itself, lay 1300' of 9x9+ curtain boom backed with sorbent

c. across marshy area from Prospect Slough mouth to the high ground near the ship channel, lay 2200' of 4X4+ boom backed with sorbent., at the west end, angle boom out toward the center channel to divert oil away from the mouth; leave trailing boom lengths to promote sealing during tidal flux.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no	type and gear	Boom boat	Skiffs punts	Skimmers No	Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-860.1	1300	2200		2400	6	6/25lb/danforths	2	1				8	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Vehicle access here is seasonal and via private levee roads. All year access to road across Cache Slough from mouth: levee road 7 miles north from Rio Vista via Hwy 84. Also Sacto Ship Channel levee. By water from Rio Vista north up the Sacramento River and then half mile west of the Sacramento Deep Water Channel along the northerly bank. This site includes Prospect Slough and marshes on both sides near its mouth as well as its upstream tributaries and Liberty Island which is flooded and has a large opening on Cache Slough just to the west of Prospect Slough mouth but multiple openings on Prospect and Shag Sloughs as well. Included are over 3000 acres in Liberty Island and 10 miles of marshy/riparian waterways and adjacent marshes. Ownership is not clear at this time.

LAND ACCESS: LEVEE MAY BE GOOD WHEN DRY

WATER LOGISTICS: GOOD AT MOUTH EXCEPT IN SHALLOW

Limitations: depth, obstruction

Launching, Loading, Docking

and Services Available:

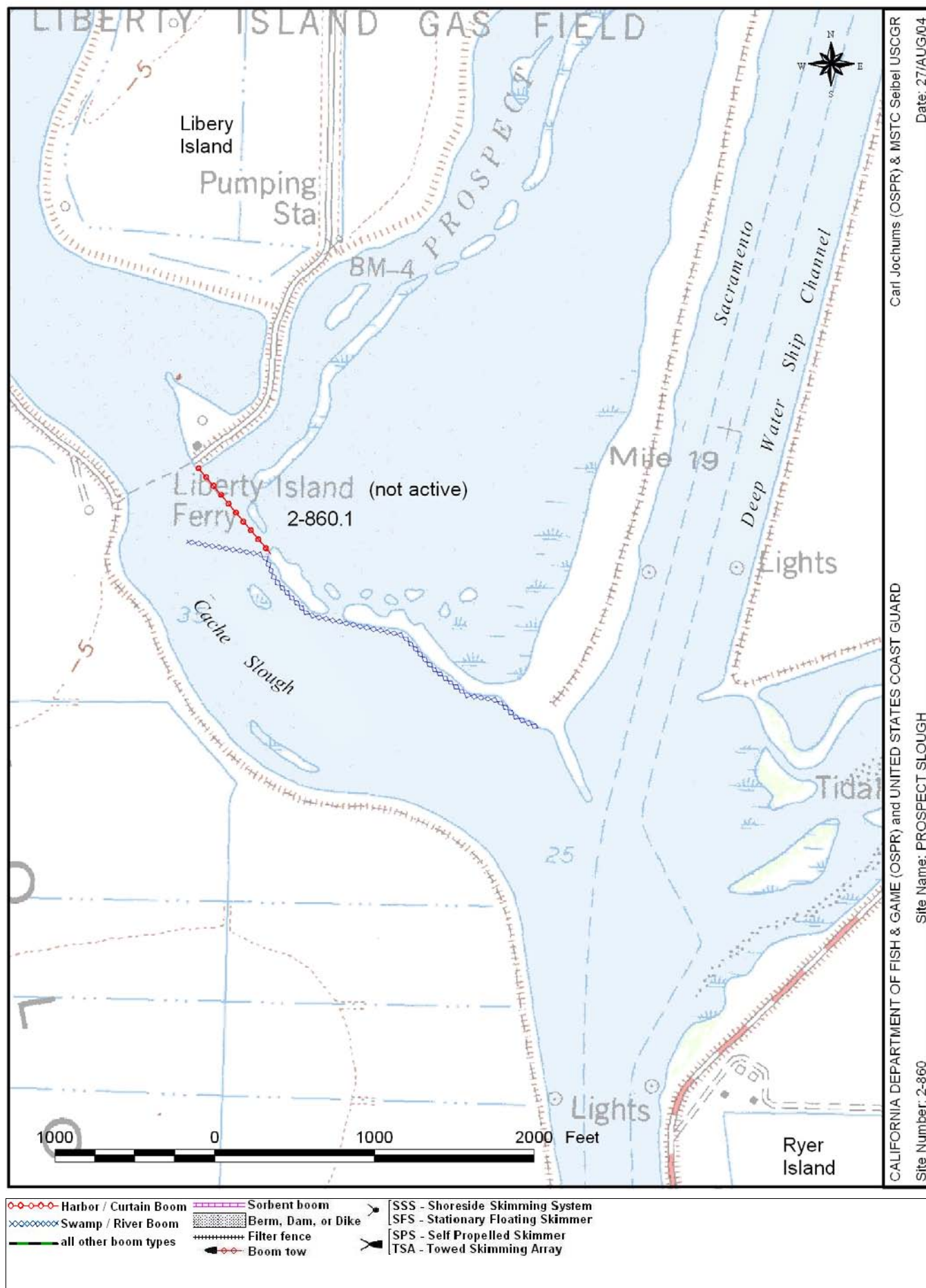
Private boat launch on east side (near Miner Slough Mouth) but needs to be cleared prior to use. Real McCoy Ferry (Hwy 84) can be used as a launch site. Launch, moorage and fuel are also available at Steamboat Slough and Rio Vista.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Real McCoy Ferry has large deployment site. Another deployment site is past mouth of Prospect Slough but access is limited. Rio Vista has a full range of support facilities.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
USGS Quad: **Bouldin Island**

Thomas Guide Location

Latitude N
38 05.7

Longitude W
121 34.7

NOAA Chart: **18661 Sacramento & San Joaquin River**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Site extend from the mouth on the San Joaquin six miles upstream to the split into the two forks. This large river mouth has a marshy channel island in the middle of its mouth and marshy pockets to each side of the mouth. The marsh island has a shallow shoal to the south. Upstream, there are numerous berm and channel islands and marshy margins along the ripped shore. The ebb flow out is strong. Oil threats are from within or on a flood tide from the San Joaquin.

SEASONAL and SPECIAL RESOURCE CONCERNS**RESOURCES OF PRIMARY CONCERN**

This is important fish migration and propagation habitat. Marshy margins provide habitat for aquatic and riverine species.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There are cultural resources present. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Victoria Hale	Brannan-Andrus Reclamation District	(916) 776-2544
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

ADDITIONAL SITE SUMMARY COMMENTS:

2-870 -A Site Strategy - Mokelumne River Mouth

County and Thomas Guide Location

Sacramento

NOAA CHART

18661 Sacramento & San Joaquin River

2-870 -A

Latitude N Longitude W

38 05.7 121 34.7

CONCERNS and ADVICE to RESPONDERS:

Last Page Update :

Major concern is oiling of emergent marshes at margins and on berm islands. To do this, the strategy is to exclude oil from entering this reach of the river.

HAZARDS and RESTRICTIONS:

Boat traffic beware of shallows, many snags and mud bars. Poison Oak.

SITE STRATEGIES

Strategy 2-870.1 Objective: Exclude oil from entering Mokelumne mouth on the flood tide by exclusion-collection booming toward eddy to west of mouth.

From the breakwater of Korth's Marina at the west side of the Mokelumne mouth, deploy 1500' 9x9+ Curtain boom wSW to the shoal in mid-channel. This will tend to convey oil to the Andrus Island shore. Line the shore and/or preclean the shoreline and commence collection. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-870.2 Objective: Back up strategy: Diversion to collection at favorable shore-side collection and boom marina entries.

Deploy 2000'6x6+ collection boom at a long diagonal to a favorable collection point along the the Bouldin Island shore to encourage stranding of oil and collection at the shore. Mid-boom anchoring will be necessary to minimize catenary entrainment. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-870.3 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers if oil accumulates in skimmable quantities. Consult IC prior to the initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-870.1	1500	1000	50 OS	100	5 5/25lbs/danforth, chain and line	2	2			14	
2-870.2	0	2000	50 OS	100	5 5/25lb/danforth anchors & stakes	1	1			9	
2-870.3	0	0	0	0	0	0	0	2SSS	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Levee roads provide vehicle access from Hwy 12. Andrus Island road is paved to the mouth of the Mokelumne River. Water access is from a variety of marinas at or near the mouth of the Mokelumne. Channel marker at mouth is G47. Site extend from the mouth on the San Joaquin six miles upstream to the split into the two forks.

LAND ACCESS: ALL WEATHER/ ALL TRAFFIC LEVEE ROAD

WATER LOGISTICS: GOOD WATER EXCEPT SHALLOW TO WEST

Limitations: depth, obstruction

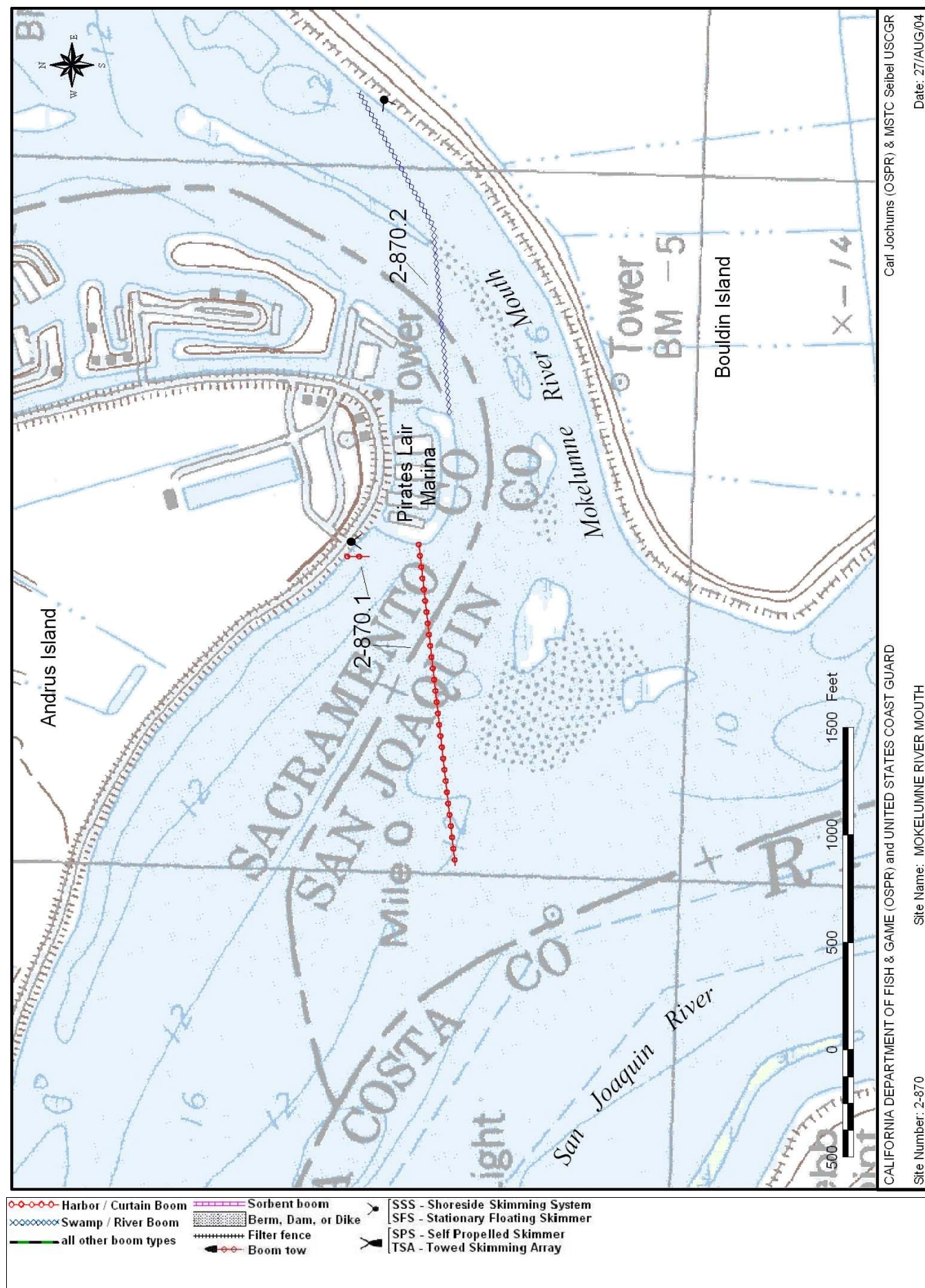
Launching, Loading, Docking and Services Available: Launching facilities available at mouth of Mokelumne River. Boat launch and marine support are available at Antioch, Bethel Island and mouth of Mokelumne. Launch is also at Brannon Island State Park.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Complete support facilities at Rio Vista and Antioch. Lesser degree at Bethel Island and Mokelumne River. Staging is possible at Rio Vista, Brannon Island, Mokelumne, Bethel Island, and Antioch.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
 USGS Quad: **Rio Vista, Bouldin Isl., Isleton**

Thomas Guide Location

Latitude N

3 8 08

Longitude W

121 33.5

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site extends from New Hope Landing (upper Mokelumne fork at north end of Staten Island) to the reunion with South Mokelumne River at southwest tip of Staten Island. It is bordered by Tyler Island on west bank and Staten Island on the east bank. This winding section of river is bordered by ripped levees throughout. Emergent patches and riparian growths are scattered though out the site. It has connects with the Delta Cross Channel via lower Snodgrass Slough and a cut between Dead Horse Island and McCormack Island. The channel is relatively deep and swift with only occasional channel islands, but there is one sizable channel island which has high ecological value because it supports several rare plant species. It is an important waterway for migrant fish, water supply conveyance, flood control and boat traffic: the waters of the Sacramento flow to the central Delta.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marshy sites are "A" priority at all times. Special Status Species of fish, plants and birds occur here. This site is within the zone of highest concern for winter-run chinook from mid-September through May.

RESOURCES OF PRIMARY CONCERN

This is very important aquatic habitat for upstream and downstream migrant fish including the salmon and steelhead stocks of the Sacramento Valley, striped bass, Sacramento splittail, and Delta smelt. The margins are either marshy or upland: both are important habitat for birdlife and small animals. Four species of rare plant occur here; all may be found on one sizable channel island about 3 miles upstream from the southern confluence.

Special Status Species of birds found here include Swainson's hawk (FSC/CT) and greater sandhill crane (CT).

This is one of several migratory corridors for migratory fish. A portion of all the salmonid stocks, including winter-run chinook (F/CE), move through this site. Striped bass, sturgeon species, Sacramento splittail, and Delta smelt also used this area for migration or temporary habitat.

Four species of rare plants have been found in this site, including: Sanford's arrowhead, Delta tule pea, Delta mudwort, and Mason's lilaeopsis. Elderberry bush, the habitat for the Valley elderberry longhorn beetle (FT), is found several places in the northern section of the site.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
OL	State Water Project Ops C	CA Dept. of Water Resources	(916) 574-2714
O	Robert Clark	North Delta Water Agency	(916) 446-0197
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
OEL	Mary Hildebrand	South Delta Water Agency	(209) 403-4082
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-873 -AB Site Strategy - North Mokelumne River

County and Thomas Guide Location

Sacramento

NOAA CHART

18662 SACRAMENTO RIVER

2-873 -AB

Latitude N

3 8 08

Longitude W

121 33.5

Last Page Update :

CONCERNS and ADVICE to RESPONDERS:

Greatest concerns are oiling of sensitive plant habitats, toxicity to sensitive fish, and penetration into marshes, levees and riprap through openings and burrows. The intention is to exclude oil from this reach of the river by exclusion and collection booming.

HAZARDS and RESTRICTIONS:

Narrow levee roads and shoulders pose potential traffic hazard, necessitating traffic control. Slips, trips and falls on riprap.

SITE STRATEGIES

Strategy 2-873.1 Objective: For oil threats from the north, diversion booming to favorable shore-side collection.

After assessing prevailing wind and current situation, deploy a exclusion-collection boom across the North Mokelumne south of Walnut Creek Road. Local conditions usually favor collection on the east levee (Staten Island); however, currents may permit collection on Tyler Island levee which has better access. Anchor near shore and ensure a tidal seal at margins. Back with sorbant boom or additional collection booms. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-873.2 Objective: If oil is threatening from south (San Joaquin River), execute south Georgiana Slough strategy and exclude oil movement upstream on flood tide.

1. Excute Georgiana Slough strategy 2-814.3.
2. Deploy 700' 6X6+ exclusion-collection boom to exclude oil from reach and to divert it to most favorable shore for collection. Prevailing conditions usually favor collection oil on the east bank (Staten Island). Deploy boom to favor a land-based collection about 300 yards upstream from Staten Island tip.
3. Back with sorbent.

Strategy 2-873.3 Objective: Protection/deflection boom around mid-channel island for oil moving in midstream.

Deploy 1000 ft 4X4+ protective boom around island using anchors and stakes position boom. Sorbent boom as needed and at every point where bridging may occur. Check often until verified that tidal fluxuation seal is intact.

Strategy 2-873.4 Objective: Oil Recovery by Shoreside skimming

Deploy skimmers when oil accumulates in skimmable quantities. Consult with IC prior to initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-873.1	0	400	50 OS	500	2 2/25lb/anchors	0	1			3	
2-873.2	0	700		600	2 2/25lb/anchors	0	1			3	
2-873.3	0	1000		400	4 4/15lb/danforths & stakes	1	1			3	
2-873.4	0	0	0	0	0	0	0	1 SSS	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Water access from south is from B&W Resort at Hwy 12 or from the north from Walnut Grove Marina or Wimp's. Levees on Staten, Tyler and Brannon Islands provide access: Tyler and Brannon are paved. This site extends from New Hope Landing (upper Mokelumne fork at north end of Staten Island) to the reunion with South Mokelumne River at southwest tip of Staten Island. It is bordered by Tyler Island on west bank and Staten Island on the east bank.

LAND ACCESS: ALL WEATHER/TRAFFIC EAST OR DRY

WATER LOGISTICS: GOOD WATER THROUGHOUT.

Limitations: depth, obstruction

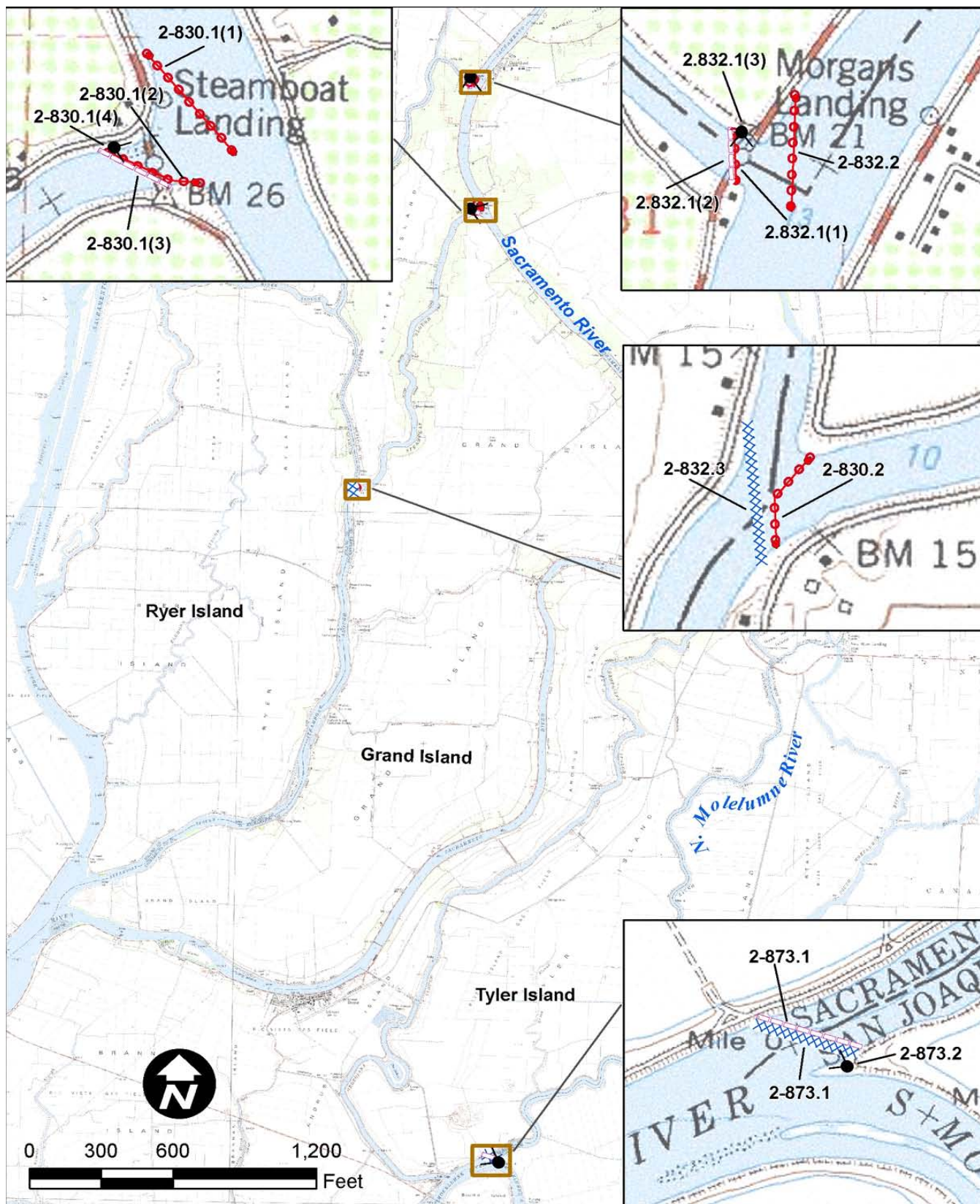
Launching, Loading, Docking and Services Available: B&W Resort Marina at Hwy 12 is well equipped and spacious. Walnut Grove and New Hope Landing at north end have similar facilities.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Both sites provide good deployment sites and facility support. Rental boats and house boats are available at Hwy 12. Most of these strategies can be supported by supplying boom from the shore.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



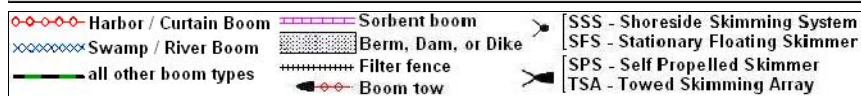
CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD

Site: 2-830 / 2-832 / 2-873

Site Name: Steamboat Slough / Sutter Slough / N. Mokelumne River

Craig Haffner (OSPR) & Greg Ewing (OSPR)

Date: March 3, 2011



County: **San Joaquin**
 USGS Quad: **Thornton, Isleton**

Thomas Guide Location
 SF Bay and Delta
 NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N
 38 07.5
 Longitude W
 121 31

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site from its confluence with the North Mokelumne at New Hope Landing to its reunion with the North Mokelumne at the south tip of Staten Island. This wide deep channel is mostly ripped levees along its 13 mile length, but there are also numerous ecologically sensitive marshy channel and berm islands throughout its length including a heron rookery (see site 2-864). Most of the islands are small but several are up to an acre in size. Several sensitive sites branch off this site: 2-862, 2-866, 2-868. It is important as a fish migration route. Many Special Status Species occur in this area.

SEASONAL and SPECIAL RESOURCE CONCERNS

This site is very sensitive year-round because many Special Status Species occur here including: winter-run chinook, of some concern Sept 15 - May 31; many rare plants; Birds: Swainson's hawk, greater sandhill crane, and a heron rookery. Marsh and riparian vegetation zones here are of A concern year-round.

RESOURCES OF PRIMARY CONCERN

Over 11 Special Status Species occur in this area. The channel islands are prime natural habitat and freshwater marshes. Despite levee riprap disturbance there is some good vegetation particularly mature trees and shrubs at the northerly end. Aquatic community is typical for delta, and this is an important pathway for migrating fish.

Swainson's hawk and greater sandhill crane are sensitive bird species which occur in this area. Riverine species include waterfowl and marsh birds.

The channel islands are used by riverine mammals, reptiles and amphibians. Western pond turtle (F/C-SC) occurs here. The levees are used by mammals and reptiles which can pass though and use disturbed and patchy habitat.

Salmon smolts (particularly winter-run chinook) are known to wander through this area during downstream migration. Juvenile and adult striped bass and warm water fish are typical.

Emergent vegetation occurs throughout the area.

Sensitive plants occur here including delta tule pea, California Hibiscus, Delta mudwort, Sanford's arrowhead, marsh skullcap, elderberry bush, Suisun marsh aster, Mason's lilaeopsis.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminus Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

ADDITIONAL SITE SUMMARY COMMENTS:

2-880 -A Site Strategy - South Mokelumne River

County and Thomas Guide Location

SF Bay and Delt San Joaquin

NOAA CHART

18662 SACRAMENTO RIVER

2-880 -A

Latitude N Longitude W

38 07.5 121 31

CONCERNS and ADVICE to RESPONDERS:

Last Page Update :

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Low flying aircraft beware of high wires near New Hope Landing. Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

SITE STRATEGIES

Strategy 2-880.1 Objective: Exclusion booming at south mouth.

Set 500 ft of 6X6 boom completely across mouth at a diagonal using levees as anchor points, leaving a trailing boom length to maintain seal during tidal vacillations. Back with sorbent.

Strategy 2-880.2 Objective: Exclusion booming at north end. Current is downstream during most times of the year.

Set 100' of 6X6 boom from the seawall at New Hope Landing to a point 50' downstream on Staten Island. Use Staten Island attachment as a collection point. Use 50ft of Oil Snare (OS), 100ft of sorbent boom to collect oil that may accumulate. Contact IC if oil accumulates in skimmable quantities.

Strategy 2-880.3 Objective: Protect marshy islands within channel

Exclusion boom and sorbent boom around and close-off entry to islands.

Strategy 2-880.4 Objective: Oil Recovery by Shoreside skimming

Deploy skimmer when oil accumulates in skimmable quantities. Use Staten Island attachment as a collection point. Consult with IC prior to the initiation of this strategy.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-880.1	0	500			2 2/25/DANFORTH	0	1			2	
2-880.2	0	100	50 OS	100	2 2/25/danforth					2	
2-880.3	0	3000		1000	12 12/15/Danforths					4	
2-880.4	0	0	0	0	0	0	0	1SSS	0		

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from west side from Staten Island levees which may be reached via I-5, exit at Thornton/Walnut Grove Rd and continue west to Staten Island Road and from east side levees as well (see Sycamore Slough 2-890). Water access is via marinas on south end along Hwy 12 (Terminus and B&W) or at north end at New Hope Landing. This site from its confluence with the North Mokelumne at New Hope Landing to its reunion with the North Mokelumne at the south tip of Staten Island.

LAND ACCESS: LEVEE ROADS GOOD EXCEPT WET

WATER LOGISTICS: GOOD WATER EXCEPT AT SHORE

Limitations: depth, obstruction

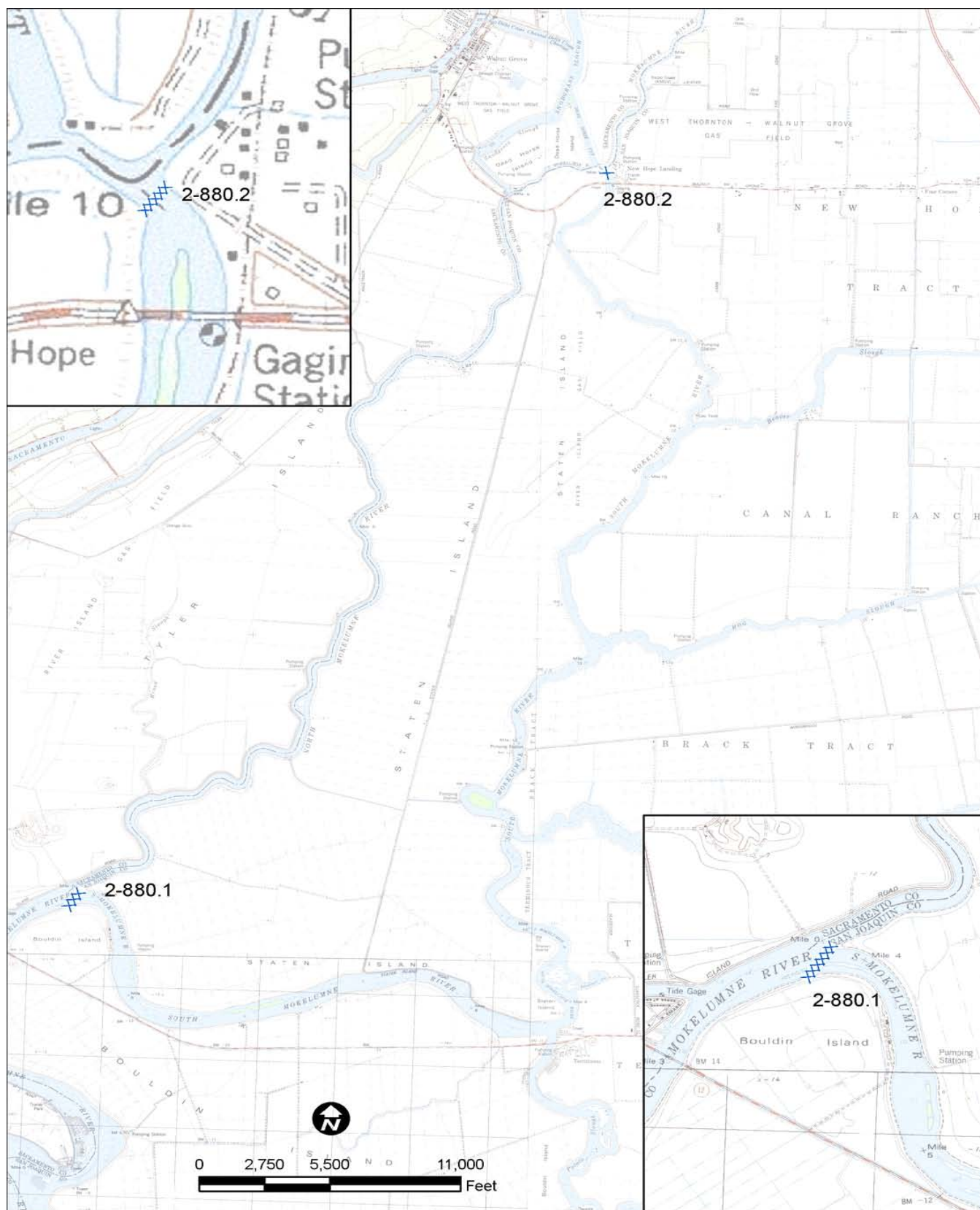
Launching, Loading, Docking and Services Available: Marina and boat launch south at Terminus and B&W Resort at Hwy 12 or up-river at New Hope Landing at Thornton Road. Rental boats, restaurants, facilities, and some lodging/camping are available also.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. There are roads leading to levees from west (Staten Island) or east and material may be staged nearby. Otherwise transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-880 Site Name: South Mokelumne River

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 3, 2011

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ○-○-○ Harbor / Curtain Boom ××××× Swamp / River Boom — all other boom types | <ul style="list-style-type: none"> ▨ Sorbent boom ▨ Berm, Dam, or Dike ▨ Filter fence ▨ Boom tow | <ul style="list-style-type: none"> ⤴ SSS - Shoreside Skimming System ⤴ SFS - Stationary Floating Skimmer ⤴ SPS - Self Propelled Skimmer ⤴ TSA - Towed Skimming Array |
|---|--|--|

County: **San Joaquin**
 USGS Quad: **Thornton**

Thomas Guide Location

SF Bay and Delt

NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N

38 08.5

Longitude W

121 30.2

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This dead-end slough extends from its mouth at its junction with the South Mokelumne River about 5 miles to its terminus. It is a DMRP designated Natural Resource Area with Significant Habitat Values. There are a number of ecologically rich marshy channel islands. Margins mostly heavily ripped but with pockets of emergent marsh vegetations and scrub shrub. Snags and shallows are common this low energy slough. It becomes fairly narrow and shallow water towards its end.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species here include: winter-run chinook, of concern Sept 15 - May 31. Rare plants in slough margins: Mason's lilaeopsis. Birds: Swainson's hawk and greater sandhill crane.

RESOURCES OF PRIMARY CONCERN

The channel islands are prime natural habitat and freshwater marshes. The bordering levee is disturbed as a result of riprap but still has good vegetation. Aquatic community is typical for delta including wandering migrant salmonids. This is considered a prime fishing area.

Swainson's hawk (FSC/CT) and greater sandhill crane (CT) are sensitive species which occur in this area. Riverine species include waterfowl and marsh birds.

The channel islands are used by riverine mammals, reptiles and amphibians. The levees are used by mammals and reptiles which can use or pass though disturbed and patchy habitat. Habitat may be suitable for western pond turtle.

Salmon smolts (particularly winter-run chinook) are known to wander through this area during downstream migration. Striped bass and warm water fish are heavily fished here.

Emergent vegetation occurs throughout site.

Sensitive plants occur here including Mason's lilaeopsis.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminus Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

ADDITIONAL SITE SUMMARY COMMENTS:

2-882 -A Site Strategy - Sycamore Slough

County and Thomas Guide Location

SF Bay and Delt San Joaquin

NOAA CHART

18662 SACRAMENTO RIVER

2-882 -A

Latitude N

Longitude W

38 08.5

121 30.2

Last Page Update :

7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species, including a nearby heron rookery at Sycamore Island: KEEP HELICOPTERS AWAY. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

SITE STRATEGIES

Strategy 2-882.1 Objective: Exclusion booming across the mouth.

Set 300 ft of 6X6 boom completely across slough mouth using levees as anchor points, leaving a trailing boom length to maintain seal during tidal vacillations. Back with sorbent.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-882.1	0	300		300	2 2/15/DANFORTH	0	1			2	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from levee Roads: I-5, exit Turner Rd and continue north on Thornton and west on Woodbridge to access north levee road; or Glascock Rd north from Hwy 12 to south levee. Water access is South Mokelumne River north from Terminous (2.5 mi) or south from New Hope Landing (8 mi). This dead-end slough extends from its mouth at its junction with the South Mokelumne River about 5 miles to its terminus.

LAND ACCESS: LEVEE ROADS GOOD EXCEPT WET

WATER LOGISTICS: SHALLOW & SNAGS

Limitations: depth, obstruction

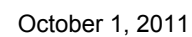
Launching, Loading, Docking Marina and boat launch 2 river miles south at Terminous at Hwy 12 or 6.5 miles up-river at
and Services Available: New Hope Landing at Thornton Road.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. There are roads leading to levees from the east and material may be staged nearby. Otherwise transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **San Joaquin**
 USGS Quad: **Thornton**

Thomas Guide Location
 SF Bay and Delt
 NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N
 38 08.7
 Longitude W
 121 30.5

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This site is a marshy, brushy island in a curve of the River just above Sycamore Slough. This small island is a DMRP designated Natural Resource Area with Significant Habitat Values. Most of the island is covered with shrubby willows, and a large heron rookery mostly on the westerly side. The east side is inundated and eroding because of wave wash from river and traffic, and is particularly vulnerable to oil intrusion. Water flow on east side tends to be swift while flow on west side tends to be laze, in an enveloping bend. There are pilings at the northeast margin.

SEASONAL and SPECIAL RESOURCE CONCERNS

This area is particularly sensitive nesting site for blackcrown night herons during spring and summer nesting and at night. Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species here include: winter-run chinook, of concern Sept 15 - May 31; plants in slough margins: Mason's lilaeopsis; birds: Swainson's hawk and greater sandhill crane.

RESOURCES OF PRIMARY CONCERN

The island is a particularly valuable natural marsh because it is a heron rookery. Aquatic community is of secondary concern.

This is a blackcrown night heron rookery. Swainson's hawk and greater sandhill crane are sensitive species which occur in this area. Riverine species include waterfowl and marsh birds also use the island.

The channel islands are used by riverine mammals, reptiles and amphibians. Habitat may be suitable for western pond turtle.

Emergent vegetation dominates this channel island.

Sensitive plants occur here including Mason's lilaeopsis.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
E	Dominick Gulli	Terminus Tract Reclamation District	(209) 465-5883
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

ADDITIONAL SITE SUMMARY COMMENTS:

2-884 -A Site Strategy - Sycamore Island

County and Thomas Guide Location

SF Bay and Delt San Joaquin

NOAA CHART

18662 SACRAMENTO RIVER

2-884 -A

Latitude N Longitude W

38 08.7 121 30.5

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

This is a very sensitive site because of the bird use. KEEP HELICOPTERS AWAY from this site. Concerns are penetration into the marshy areas, woody cover. Cleanup would be impossible during breeding season and inadvisable at other times. No helicopters may be flown within a mile of this site. Keep disturbance to a minimum.

HAZARDS and RESTRICTIONS:

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

SITE STRATEGIES

Strategy 2-884.1 Objective: Phase I: Stop oil from penetrating or oiling the island by placing exclusionary boom across the channel meander and the east side.

Set 1500 ft of 4X4 or better boom completely across the meander channel and east side of island. Anchor one boom end near levee to north and lay boom across channel mouth to island, then along island and continue to levee across downstream channel. Leave a trailing boom length to maintain seal during tidal vacillations. Back with sorbent.

Strategy 2-884.2 Objective: Phase II: Divert oil away from island side of river toward the east bank to minimize exposure of island to oil.

Run 300 ft 6X6 boom diagonally downstream across Mokeleumne River. Anchor upstream end 75 ft upstream from exclusion boom. Use downstream anchor point as possible skim/collection site.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-884.1	0	1500		1500	4 4/15/DANFORTH	0	2			4	
2-884.2	0	300			2 2/15/danforth	0	1			4	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to this island site is water access via South Fork Mokelumne River north from Terminous or south from New Hope Landing. Road support from east side via I-5, exit at Turner Rd and continue north on J8 and west on Woodbridge Rd to access levee roads which border the slough. This site is a marshy, brushy island in a curve of the River just above Sycamore Slough.

LAND ACCESS: LEVEE ROADS GOOD EXCEPT WET

WATER LOGISTICS: SHALLOW & SNAGS

Limitations: depth, obstruction

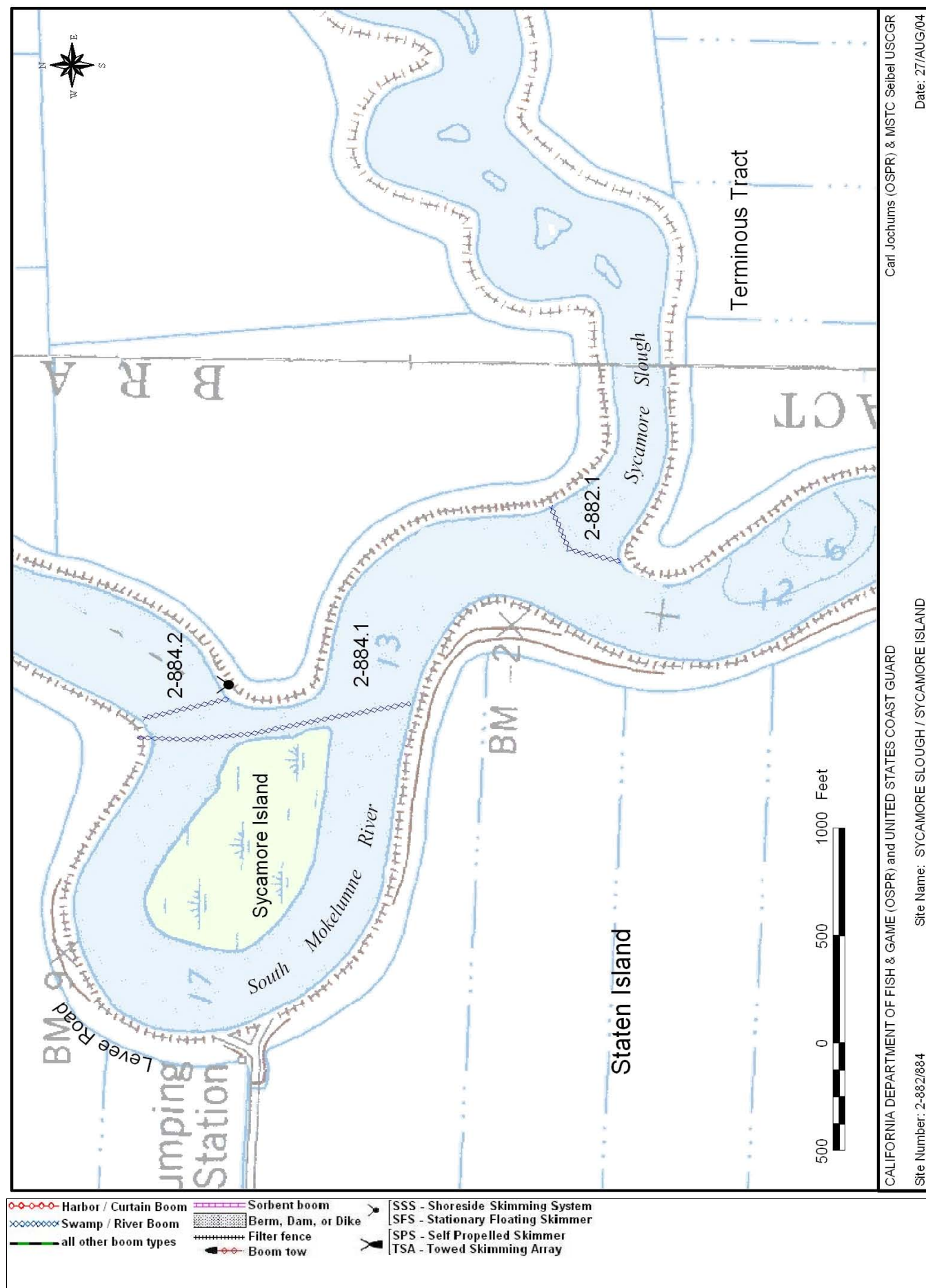
Launching, Loading, Docking and Services Available: Marina and boat launch 2 river miles south at Terminous at Hwy 12 or 6.5 miles up-river at New Hope Landing at Thornton Road.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. Either levee (Staten Island or Brack Tract) can be used to off-load boom from ground transport. All weather roads approach this site from both east and west. Otherwise transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **San Joaquin**
 USGS Quad: **Thornton**

Thomas Guide Location

SF Bay and Delta

NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N

38 11.7

Longitude W

121 28.7

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This dead-end slough extends from its mouth at its junction with the South Fork Mokelumne River Cut about 3 miles to its terminus. The Slough is a Delta Master Recreational Plan designated Natural Resource Area with Significant Habitat Values. There are a number of ecologically rich marshy channel islands. Margins mostly heavily ripped but with pockets of emergent marsh vegetations and scrub shrub. Snags and shallows are common in this low energy slough. It becomes fairly narrow and shallow towards its end.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species here include: winter-run chinook, of concern Sept 15 - May 31. Plants in slough margins: Mason's lilaeopsis and California hibiscus. Birds: Swainson's hawk and greater sandhill crane.

RESOURCES OF PRIMARY CONCERN

Aquatic community is typical for Delta except that salmonids are not common. This is considered a prime fishing area. The channel islands are prime natural habitat and freshwater marshes. The levee is disturbed as a result of riprap but still has good vegetation.

Swainson's hawk and greater sandhill crane are sensitive species which occur here. Riverine species include waterfowl and marsh birds.

The channel islands are used by riverine mammals, reptiles and amphibians. The levees are used by mammals and reptiles which can pass though and use disturbed and patchy habitat. Habitat may be suitable for western pond turtle.

Salmon smolts (particularly winter-run chinook) are known to wander through this area during downstream migration. Juvenile and adult striped bass and warm water fish are typical.

Freshwater invertebrates are those typical of fresher Delta waters.

Emergent vegetation occurs throughout the area.

A number of sensitive plants occur here including Mason's lilaeopsis and California hibiscus.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190
E	Chris Neudeck	Mandeville Island Reclamation District	(209) 946-0268
OEL	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883

ADDITIONAL SITE SUMMARY COMMENTS:

2-886 -A Site Strategy - Hog Slough

County and Thomas Guide Location

SF Bay and Delt San Joaquin

NOAA CHART

18662 SACRAMENTO RIVER

2-886 -A

Latitude N

Longitude W

38 11.7

121 28.7

Last Page Update :

7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

SITE STRATEGIES

Strategy 2-886.1 Objective: Exclusion booming at mouth by stringing lengths of boom between the two channel islands.

Set boom completely across slough mouth using levees and channel islands as anchor points, leaving a trailing boom length to maintain seal during tidal vacillations. Back with sorbent. The lengths between land falls are (from north to south) 200', 300', 200', and 200'.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-886.1	0	900		900	8 8/15/DANFORTH	1	1			2	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from east side via I-5, exit at Turner Rd and continue north to Woodbridge then west to access levee road which border the slough and River. Water access is South Fork Mokelumne River: south from New Hope Landing or north from Terminous. This dead-end slough extends from its mouth at its junction with the South Fork Mokelumne River Cut about 3 miles to its terminus.

LAND ACCESS: LEVEE ROADS GOOD EXCEPT WET

WATER LOGISTICS: SHALLOW & SNAGS

Limitations: depth, obstruction

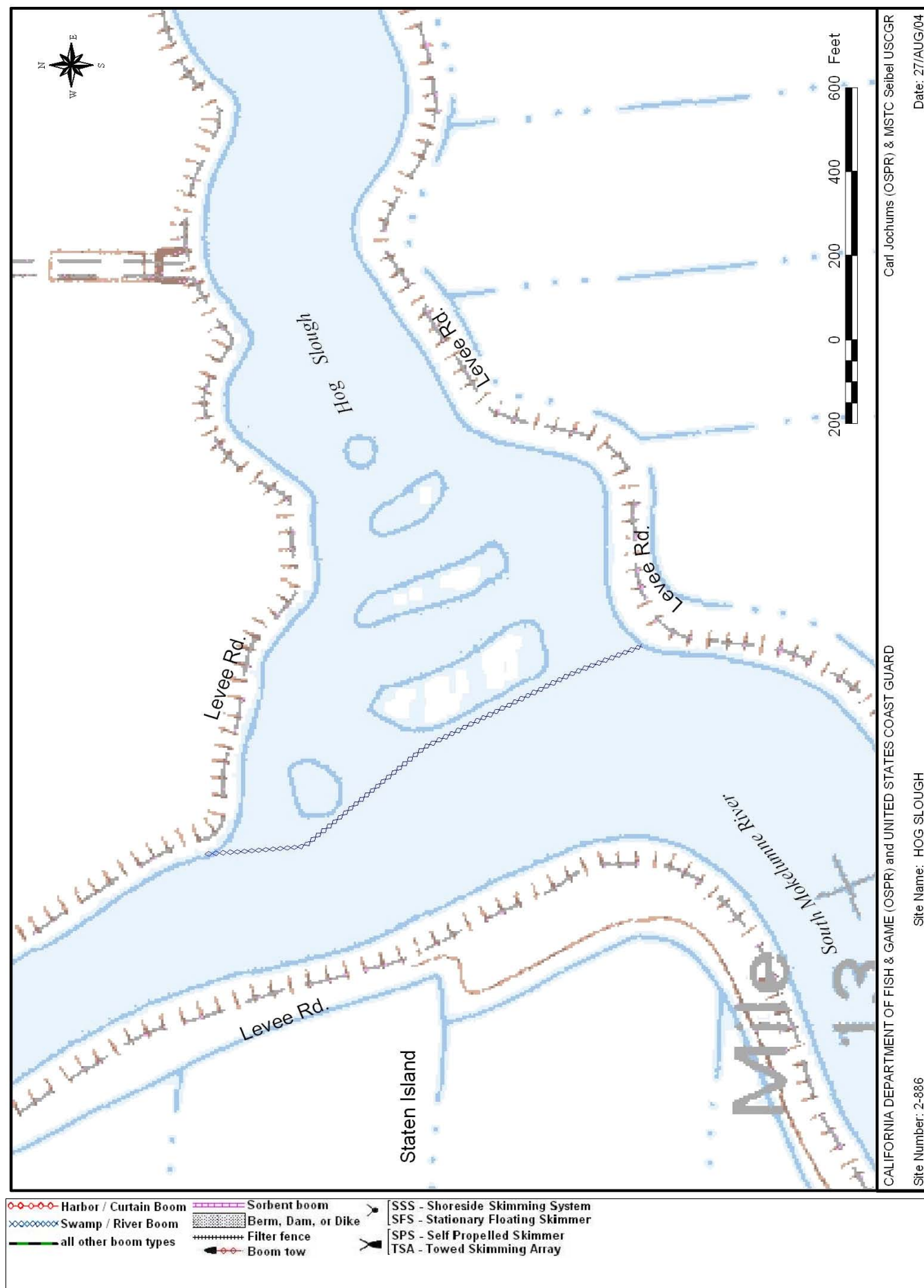
Launching, Loading, Docking Marina and boat launch 4 river miles south at Terminous at Hwy 12 or 4.5 miles up-river at
and Services Available: New Hope Landing at Thornton Road.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. There are roads leading to levees from the east and material may be staged nearby. Otherwise transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **San Joaquin**
 USGS Quad: **Thornton**

Thomas Guide Location
 SF Bay and Delt
 NOAA Chart: **18662 SACRAMENTO RIVER**

Latitude N
 3 8 12
 Longitude W
 121 28

Last Page Update : 7/1/1996

SITE DESCRIPTION:

This dead-end slough extends from its mouth at its junction with the South Fork Mokelumne River Cut about 4 miles to its terminus near I-5. The Slough is a Delta Master Recreational Plan designated Natural Resource Area with Significant Habitat Values. There are a number of ecologically rich marshy channel islands. Margins mostly heavily ripped but with pockets of emergent marsh vegetations and scrub shrub. It becomes fairly narrow and shallow water towards its end. Snags and shallows are common this low energy slough.

SEASONAL and SPECIAL RESOURCE CONCERNS

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species here include: winter-run chinook, of concern Sept 15 - May 31. Plants in slough margins: Delta tule pea, Delta mudwort, Mason's lilaeopsis and California hibiscus. Birds: Swainson's hawk and greater sandhill crane.

RESOURCES OF PRIMARY CONCERN

Aquatic community is typical for Delta except that salmonids are not common. This is considered a prime fishing area. The channel islands are prime natural habitat and freshwater marshes. The levee is disturbed as a result of riprap but still has good vegetation.

Swainson's hawk and greater sandhill crane are sensitive species which occur in this area. Riverine species include waterfowl and marsh birds.

The channel islands are used by riverine mammals, reptiles and amphibians. The levees are used by mammals and reptiles which can pass though and use disturbed and patchy habitat. Habitat may be suitable for western pond turtle.

Salmon smolts (particularly winter-run chinook) are known to wander through this area during downstream migration. Juvenile and adult striped bass and warm water fish are typical.

Freshwater invertebrates are those typical of fresher delta waters.

Emergent vegetation occurs throughout the area.

A number of sensitive plants occur here including Delta tule pea, Delta mudwort, Mason's lilaeopsis and California hibiscus.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
O	Robert Clark	North Delta Water Agency	(916) 446-0197
E	Gilbert Cosio	Webb Tract Reclamation District	(209) 943-5551
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
E	Henry Matsunaga	Sherman Reclamation District	(916) 448-2821
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-888 -A Site Strategy - Beaver Slough

County and Thomas Guide Location

SF Bay and Delt San Joaquin

NOAA CHART

18662 SACRAMENTO RIVER

2-888 -A

Latitude N

3 8 12

Longitude W

121 28

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

SITE STRATEGIES

Strategy 2-888.1 Objective: Exclusion booming across the mouth.

Set 300ft of 4X4 boom completely across slough mouth using levees as anchor points and leaving a trailing boom length to maintain seal during tidal vacillations. Back with sorbent. Also, position 30ft of 4X4 curtain boom across the opening and 40 ft of sorbent.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
2-888.1	0	350		300	3 3/15/DANFORTH	0	1			2	

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is levee roads: via I-5, exit at Walnut Grove Rd and continue west, then south on Blossom Rd Bridge over slough: access levee roads which border the slough (other farm roads access levee from county roads). Water access is South Fork Mokelumne River south from New Hope Landing (2.5 mi) or north from Terminous. This dead-end slough extends from its mouth at its junction with the South Fork Mokelumne River Cut about 4 miles to its terminus near I-5.

LAND ACCESS: LEVEE ROADS GOOD EXCEPT WET

WATER LOGISTICS: SHALLOW & SNAGS

Limitations: depth, obstruction

Launching, Loading, Docking Marina and boat launch 4 river miles south at Terminous at Hwy 12 or 4.5 miles up-river at
and Services Available: New Hope Landing at Thornton Road.

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Adjacent levees should be adequate as long as roads are passable. There are roads leading to levees from the east and material may be staged nearby. Otherwise transport material by skiff.

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



CALIFORNIA DEPARTMENT OF FISH & GAME (OSPR) and UNITED STATES COAST GUARD
 Site: 2-888 Site Name: Beaver Slough

Craig Haffner (OSPR) & Greg Ewing (OSPR)
 Date: March 2, 2011

<ul style="list-style-type: none"> Harbor / Curtain Boom Swamp / River Boom all other boom types 	<ul style="list-style-type: none"> Sorbent boom Berm, Dam, or Dike Filter fence Boom tow 	<ul style="list-style-type: none"> SSS - Shoreside Skimming System SFS - Stationary Floating Skimmer SPS - Self Propelled Skimmer TSA - Towed Skimming Array
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County: **San Joaquin / Sacramento**
USGS Quad: **Bruceville, Thornton**

Thomas Guide Location

Latitude N
3 8 15

Longitude W
121 29

NOAA Chart: **18662 SACRAMENTO RIVER**

Last Page Update : 7/1/1996

SITE DESCRIPTION:

From landing at Thornton Road to confluence with Cosumnes River. Extensive woody riparian and marshy margin. Prone to overflow to Snodgrass Slough during flood flows.

SEASONAL and SPECIAL RESOURCE CONCERNS

The site is an "A" priority year-round. Several Special Status Species occur here.

RESOURCES OF PRIMARY CONCERN

This extensive freshwater marsh system is good habitat for marsh birds and mammals of all kinds. This is nesting and foraging habitat for all manner of waterfowl and marsh birds. The marsh also supports a wide diversity of marsh mammals and other vertebrates.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-890 -A Site Strategy - Mokelumne River, New Hope Reach

County and Thomas Guide Location
San Joaquin / Sacramento

NOAA CHART
18662 SACRAMENTO RIVER

2-890 -A

Latitude N Longitude W
3 8 15 121 29

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Boat traffic beware of shallows, many snags and mud bars. Poison Oak.

SITE STRATEGIES

Strategy 2-890.1 Objective: Diversion to collection: Stop oil from moving freely moving down the river

No technique developed

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
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2-890.1 0

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

LAND ACCESS:

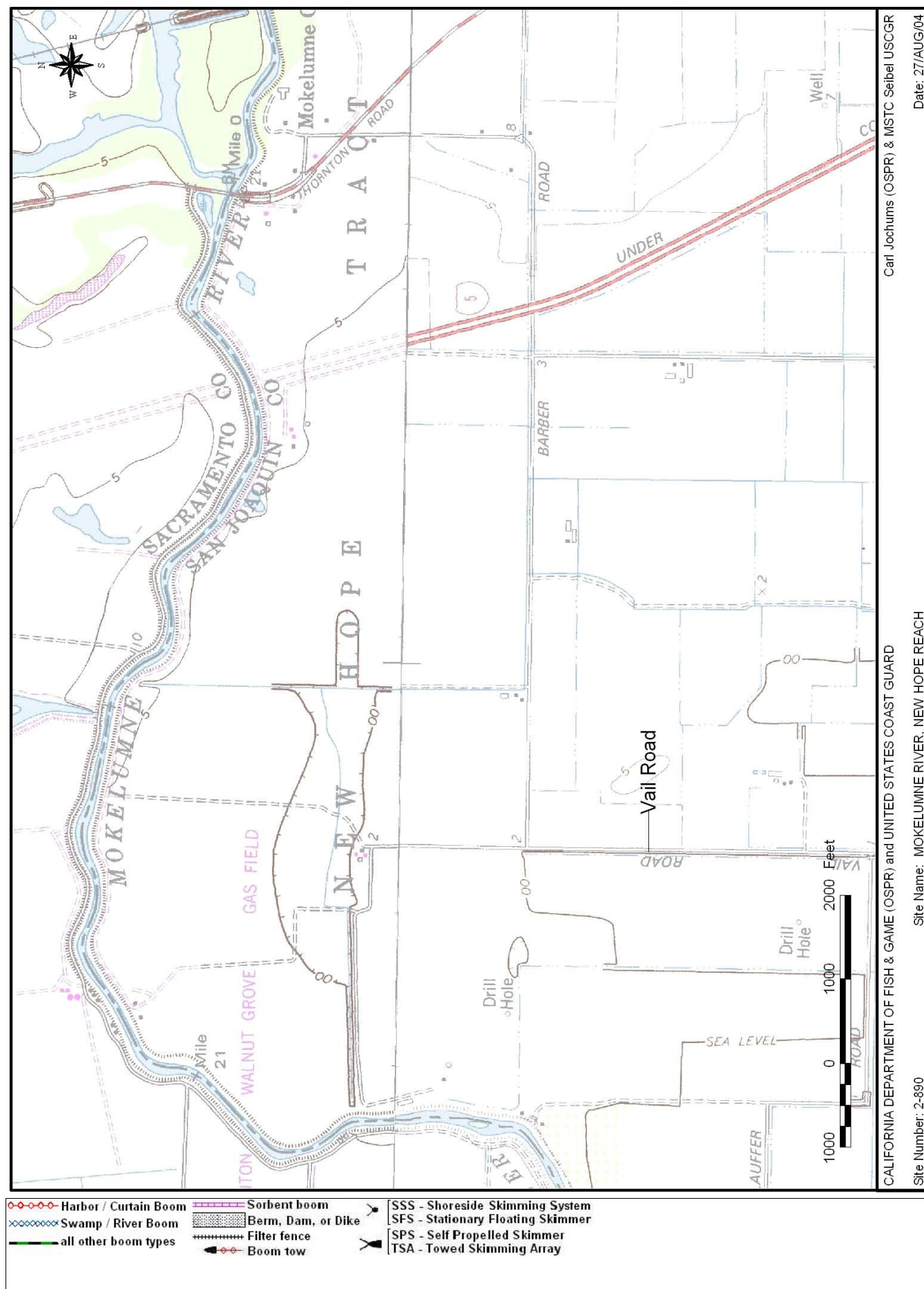
WATER LOGISTICS:

Limitations: depth, obstruction
Launching, Loading, Docking
and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



County: **Sacramento**
 USGS Quad: **Thornton, Bruceville, Galt**

Thomas Guide Location

Latitude N
 3 8 14

Longitude W
 121 26

NOAA Chart:

Last Page Update : 7/1/1996

SITE DESCRIPTION:

Nature Conservancy and Bureau of Land Management have established and operate this reserve. The sloughs are tidally influenced.

SEASONAL and SPECIAL RESOURCE CONCERNS

The site is an "A" priority year-round. Several Special Status Species occur here.

RESOURCES OF PRIMARY CONCERN

This extensive freshwater marsh system is good habitat for marsh birds and mammals of all kinds. This is nesting and foraging habitat for all manner of waterfowl and marsh birds. The marsh also supports a wide diversity of marsh mammals and other vertebrates. Special status species occurring here include Sandhill cranes, Giant Garter snakes, and Southwest Pond turtles, as well as California hibiscus and wild rye found in this area. At least three pairs of Swainsons Hawks have also been spotted living in the reserve.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There is an archeological site here. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TBE	Holden Brink	US Bureau of Land Management	(916) 683-1740
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-895 -A Site Strategy - Cosumnes River Reserve

County and Thomas Guide Location

NOAA CHART

2-895 -A

Latitude N

Longitude W

Sacramento

3 8 14

121 26

CONCERNS and ADVICE to RESPONDERS:

Last Page Update : 7/1/1996

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Boat traffic beware of shallows, many snags and mud bars. Poison Oak.

SITE STRATEGIES

Strategy 2-895.1 Objective: Diversion to collection: Stop oil from moving freely in the reserve and down the river.

No technique developed.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no tvpe and aear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
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2-895.1 0

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access: Interstate 5 to Twin Cities Rd (26 miles north of Stockton, or 22 miles south of Sacramento). East on Twin Cities Rd to Franklin Blvd. Turn right on Franklin Rd and proceed south 1.5 miles. This site is just east of the Area Contingency Planning Area.

LAND ACCESS:

WATER LOGISTICS:

Limitations: depth, obstruction

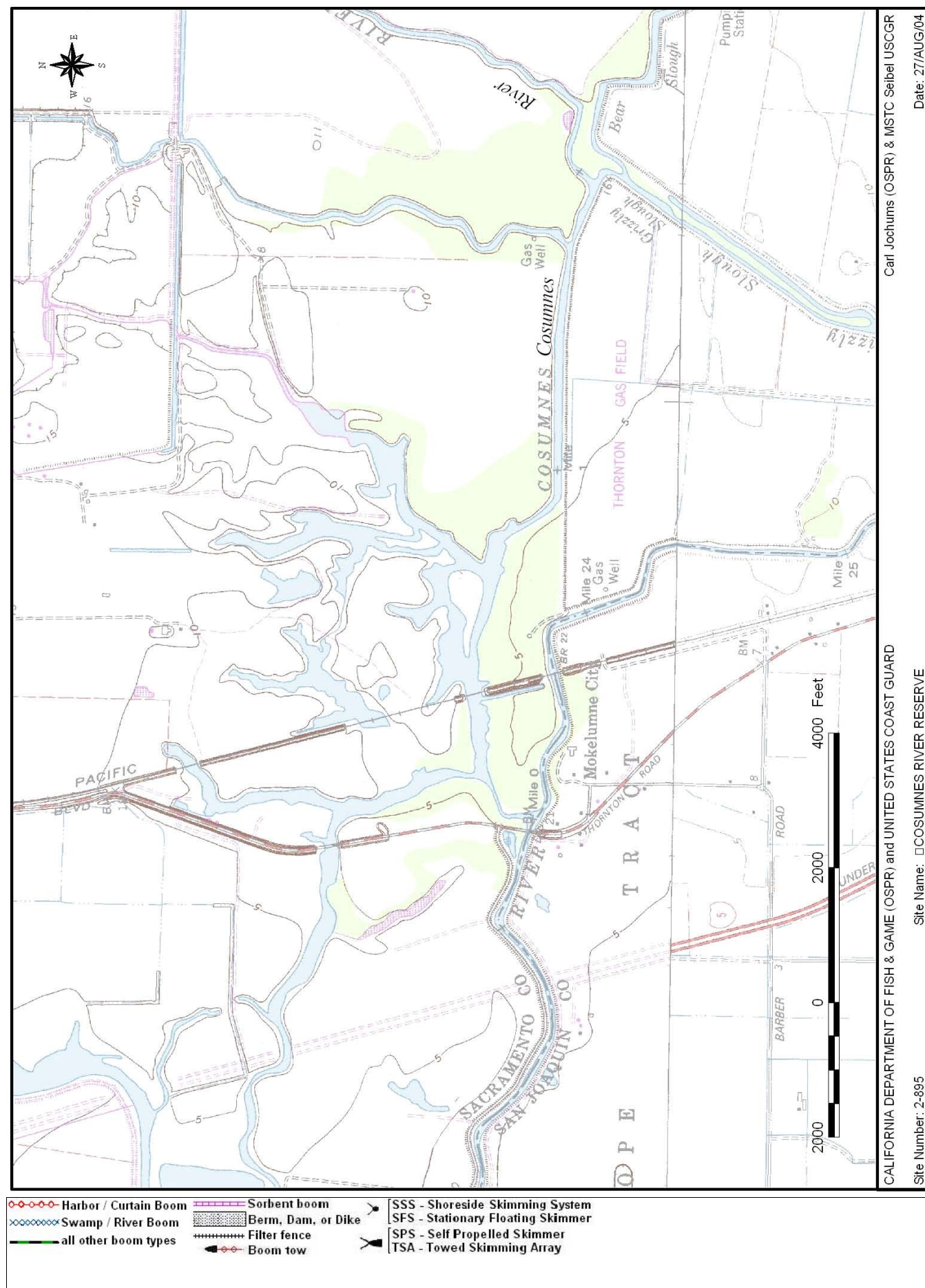
Launching, Loading, Docking

and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



2-896 -A Site Summary- Mokelumne River, Thornton Reach**2-896 -A**

County: **San Joaquin / Sacramento**
USGS Quad: **Bruceville, Thornton**

Thomas Guide Location

Latitude N Longitude W
3 8 14 121 25

NOAA Chart:

Last Page Update : 7/1/1996

SITE DESCRIPTION:

From confluence with Cosumnes River to eastern boundary of Delta (De Vries Rd). Extensive woody riparian and marshy margin. Some remnants of riparian live oak uplands. Prone to overflow during flood flows.

SEASONAL and SPECIAL RESOURCE CONCERNS

The site is an "A" priority year-round. Several Special Status Species occur here.

RESOURCES OF PRIMARY CONCERN

This extensive freshwater marsh system is good habitat for riparian species of all kinds. This is remnant expanse of natural riparian forest. It is some of the highest quality habitat of this kind in the Delta.

CULTURAL, HISTORIC, and ARCHEOLOGICAL SENSITIVITIES

There is an archeological site here. Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

KEY CONTACTS: Trustee (T); Entry/Owner/Access (E); Cultural (C); or Other Assistance (O)

Type	Name / Title	Organization	Phone
TB	Mike Fris	US Fish & Wildlife Service, Endangered Species	(916) 414-6464
B	Brenda Grewell Restoration Ecologist	US Dept. of Agriculture	(530) 752-0166
	Eric Larson	CA Dept. of Fish & Game, Bay/Delta	(707) 944-5528
BL	Kent Nelson	CA Dept. of Water Resources	(916) 653-9190

ADDITIONAL SITE SUMMARY COMMENTS:

2-896 -A Site Strategy - Mokelumne River, Thornton Reach

County and Thomas Guide Location

San Joaquin / Sacramento

NOAA CHART

2-896 -A

Latitude N

Longitude W

3 8 14

121 25

Last Page Update : 7/1/1996

CONCERNS and ADVICE to RESPONDERS:

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

HAZARDS and RESTRICTIONS:

Boat traffic beware of shallows, many snags and mud bars. Poison Oak.

SITE STRATEGIES

Strategy 2-896.1 Objective: Diversion to collection.

no technique developed.

Table of Response Resources

strategy number	harbor boom	swamp boom	Other boom type	sorb boom	Anchoring no type and gear	Boom boat	Skiffs punts	Skimmers No Type	Special Equipment or comment No and kinds	staff deploy	Staff tend
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2-896.1

0

LOGISTICS

DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

LAND ACCESS:

WATER LOGISTICS:

Limitations: depth, obstruction

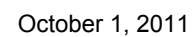
Launching, Loading, Docking

and Services Available:

FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

COMMUNICATIONS PROBLEMS: none known

ADDITIONAL OPERATIONAL COMMENTS:



9848.2 Cultural and Other Resources at Risk

9848.21 Cultural Resources, Historic and Archeological Resources

– see [Section 9802.1](#), [Section 9840](#) for contact table, and individual site summaries

9848.22 Essential Fish Habitat – see [Section 9802.2](#)

9848.23 Other Resources at Risk - This section is reserved for specialized information regarding natural resources that occur in this particular geographic area; such as: seasonal migratory waterfowl and shorebird locations and densities; salmonid fish migration periods; or special considerations for eelgrass beds.

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9848.3 Economic Sites

Strictly economic resources are designated as the third priority for dedication of oil spill response resources, following human health and safety and environmental resources. The economic sites are ranked using a continuation of the environmental scale with D, E, and F categories. Economic resources that have a greater potential for long-term damages receive a higher rank or priority for emergency response.

The following criteria or definitions are used to categorize economic resources in terms of priority for response:

D = Economic activities and resources which require high water quality for their operations or existence. Resources that fall into this category would face severe, long-term economic impacts from a spill.

E = Facilities, businesses, or resources which directly use coastal or bay waters within their economic activity and which are at risk of oiling from a spill in marine waters. The resources falling into this category would face significant disruption of their activity, but shorter term potential damages from oiling than resources in “D” category.

F = This category contains marine associated facilities, businesses and resources. These resources would face economic impacts from a marine spill, but do not depend directly on marine water for their economic base. Resources in this category will tend to face less severe damages than those identified in categories D or E.

In the following section, economic sites found within the GRA are listed in table format, which contain information such as latitude, longitude, economic sensitivity, etc. Following the table are diagrams denoting the location of an economically sensitive site(s). Diagrams are organized alphabetically by county, then numerically by map and site number.

Economic Sites in GRA 8								
Line No.	County	Site Name	Site Description	Latitude	Longitude	Economic Sensitivity	Site Function	Site Address
3	Sacramento	Rosie's Courtland Docks	Sacramento-San Joaquin Delta (Sacramento River)					11740 State Highway 160, Courtland 95615
4	Sacramento	B&W Resort Marina	Sacramento-San Joaquin Delta (Georgiana Slough/Mokelumne River)	38.13	-121.58	E	100 berths and dry boat storage	964 Brannan Island Road, Isleton 95641
5	Sacramento	Owl Harbor	Sacramento-San Joaquin Delta (Severnille Slough)	38.12	-121.63	E	240 berths	1550 W. Twichel Island Road, Isleton 95641
6	Sacramento	Manin's Rainbow Resort	Sacramento-San Joaquin Delta (Severnille Slough)	38.12	-121.62	E		1100 West Brannan Island Road, Isleton 95641
7	Sacramento	Bruno's Island Yacht Harbor	Sacramento-San Joaquin Delta (Severnille Slough)	38.12	-121.62	E	150 berths	1200 West Brannan Island Rd., Isleton 95641
8	Sacramento	DAS Cliffhouse	Sacramento-San Joaquin Delta (Sacramento River)	38.17	-121.64	E	Recreational fishing access	16264 Highway 160, Isleton 95641
9	Sacramento	Delta Isle	Sacramento-San Joaquin Delta (Mokelumne River)	38.11	-121.59	E	Boat docking, storage, and recreation areas	601 Brannan Island Road, Isleton 95641
10	Sacramento	Happy Harbor	Sacramento-San Joaquin Delta (Mokelumne River)	38.11	-121.60	F	Restaurant	731 Brannan Island Road, Isleton 95641
11	Sacramento	Rancho Marina Resort	Sacramento-San Joaquin Delta (Mokelumne River)	38.11	-121.58	E		395 Brannan Island Road, Isleton 95641
12	Sacramento	Willow Berm Marina	Sacramento-San Joaquin Delta (San Joaquin/Mokelumne River)	38.10	-121.57	E	365 berths	140 Brannan Island Road, Isleton 95641
13	Sacramento	Riverboat Marina	Sacramento-San Joaquin Delta (San Joaquin/Mokelumne River)	38.10	-121.57	E	70 berths	106 West Brannan Island Road, Isleton 95641
14	Sacramento	Korth's Pirate's Lair Marina	Sacramento-San Joaquin Delta (San Joaquin/Mokelumne River)	38.10	-121.57	E	212 berths	169 West Brannan Island Road, Isleton 95641
15	Sacramento	Lighthouse Marina Resort	Sacramento-San Joaquin Delta (San Joaquin/Mokelumne River)	38.10	-121.57	E	Cabin rentals, boat launching facilities	151 Brannan Island Road, Isleton 95641
16	Sacramento	Spindrift Marina	Sacramento-San Joaquin Delta (San Joaquin River)	38.11	-121.60	E	145 berths	841 West Brannan Island Road, Isleton 95641
17	Sacramento	Oxbow Marina	Sacramento-San Joaquin Delta (Georgiana Slough)	38.15	-121.59	E	424 berths	100 Oxbow Marina Drive, Isleton 95641
18	Sacramento	Perry's Boat Harbor & Drydock	Sacramento-San Joaquin Delta (Mokelumne River)	38.13	-121.58	E/F	Full service boat repair	500 Perry's Island Road, Isleton 95641
19	Sacramento	Viera's Resort	Sacramento-San Joaquin Delta (Sacramento River)	38.17	-121.64	E	112 berths	15476 Highway 160, Isleton 95641
20	Sacramento	Brannan Island SRA	Sacramento-San Joaquin Delta (Sacramento River)	38.12	-121.69	E	Camp sites, boat launch	17645 Highway 160, Rio Vista 94571
22	Sacramento	Sacramento City Marina	Sacramento-San Joaquin Delta (Sacramento River)	38.57	-121.52	E		2710 Ramp Way, Sacramento 95818
23	Sacramento	Dagmars Landing	Sacramento-San Joaquin Delta (Sacramento River/Georgiana Slough)	38.24	-121.52	E		14181 River Rd. Hwy #160, Walnut Grove 95690
24	Sacramento	Landing 63	Sacramento-San Joaquin Delta (Sacramento River)	38.25	-121.51	E		14031 Highway 160, Walnut Grove 95690
26	Sacramento	Walnut Grove Marina	Sacramento-San Joaquin Delta (Sacramento River)	38.23	-121.51	E		1400 Old Levee Road, Walnut Grove 95690
27	Sacramento	Boathouse Marina	Sacramento-San Joaquin Delta (Sacramento River)	38.25	-121.51	E	60 berth, dry boat storage	13900 River Road, Locke 95690
28	San Joaquin	Tower Park Marina	Sacramento-San Joaquin Delta (Mokelumne River)	38.11	-121.50	E	385 berths	14900 West Highway 12, Lodi 95242
29	San Joaquin	New Hope Landing	Sacramento-San Joaquin Delta (Mokelumne River)	38.23	-121.49	E		13945 West Walnut Grove Road, Thornton 95686
30	San Joaquin	Wimpy's Marina	Sacramento-San Joaquin Delta (Mokelumne River)	38.23	-121.49	E	20 berths	14001 West Walnut Grove Road, Walnut Grove 95690
1	Solano	Delta Marina	Marine Way, Rio Vista	38.2	-121.69	E	Boat Launching and Mooring Facilities	100 Marina Drive, Rio Vista 94571
2	Solano	Sandy Beach Park	Beach Street, Rio Vista	38.1	-121.69	F	Waterfront Public Park	
25	Solano	Snug Harbor Resort	Sacramento-San Joaquin Delta (Steamboat Slough)	38.20	-121.62	E	115 berths	3356 Snug Harbor Drive (on Ryer Island), Walnut Grove 95690
31	Solano	Arrowhead Harbor	Sacramento-San Joaquin Delta (Sutter Slough)	38.29	-121.65	E	Boat launch, berthing, and camping facilities	4396 Holland Road, Clarksburg 95612

Yolo/Solano Counties



Economically Significant Sites - GRA 8

YOLO CO

Rosie's Courtland
Docks, Line No. 3



Arrowhead Harbor,
Line No. 31



SOLANO CO

SACRAMENTO CO

0 0.5 1 2 Miles

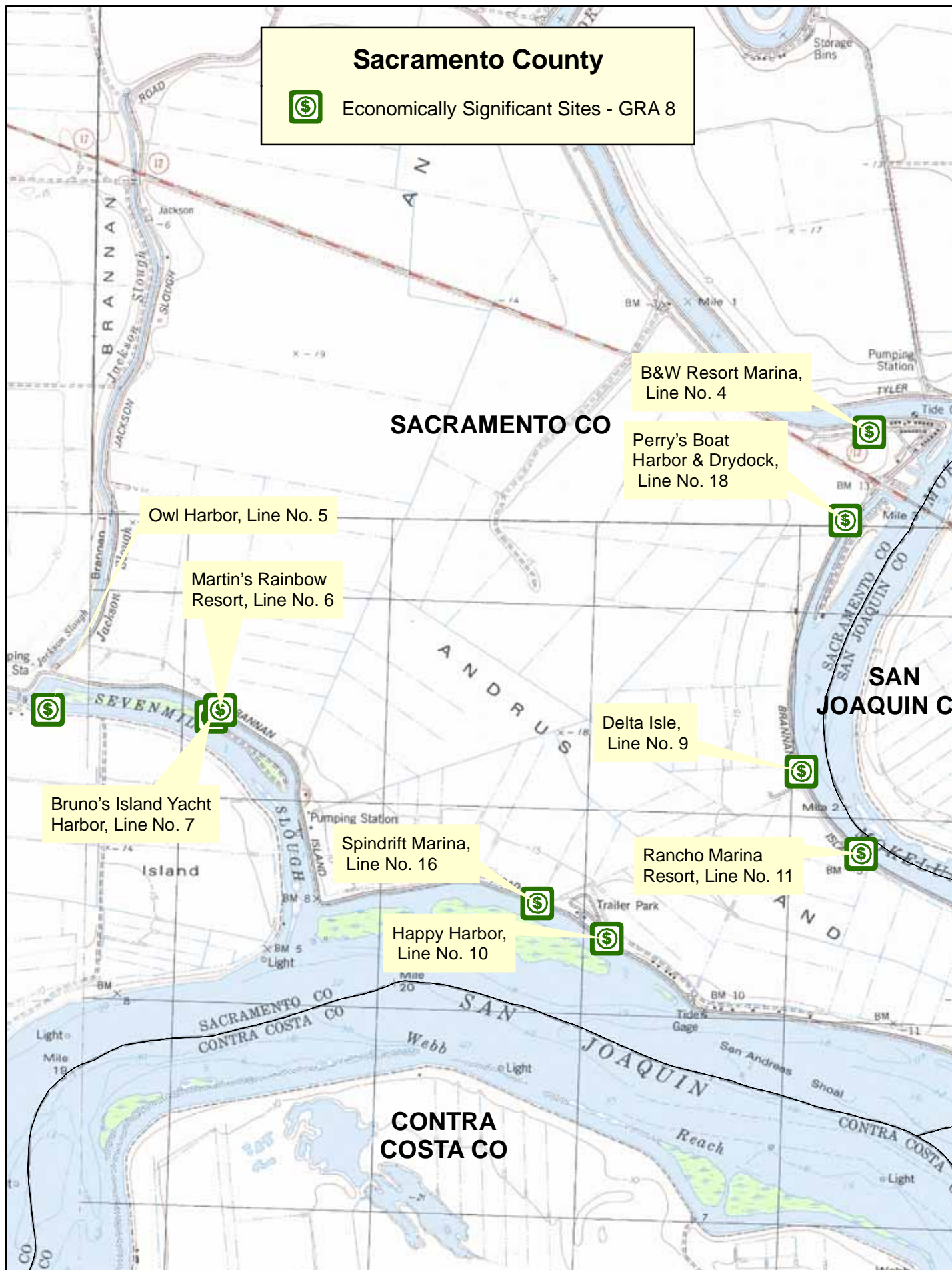


California Department of Fish and Game
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Yolo/Solano Co, Layout 002

Sacramento County



Economically Significant Sites - GRA 8



0 0.25 0.5 Miles



California Department of Fish and Game
Office of Spill Prevention and Response
Sacramento Co, Layout 006

Solano/Sacramento Counties



Economically Significant Sites - GRA 8

SOLANO CO

Snug Harbor Resort,
Line No. 25



GRAND ISLAND

Viera's Resort,
Line No. 19

SACRAMENTO CO

DAS Cliffhouse,
Line No. 8



RIO VISTA GAS FIELD

0 0.25 0.5 1 Miles

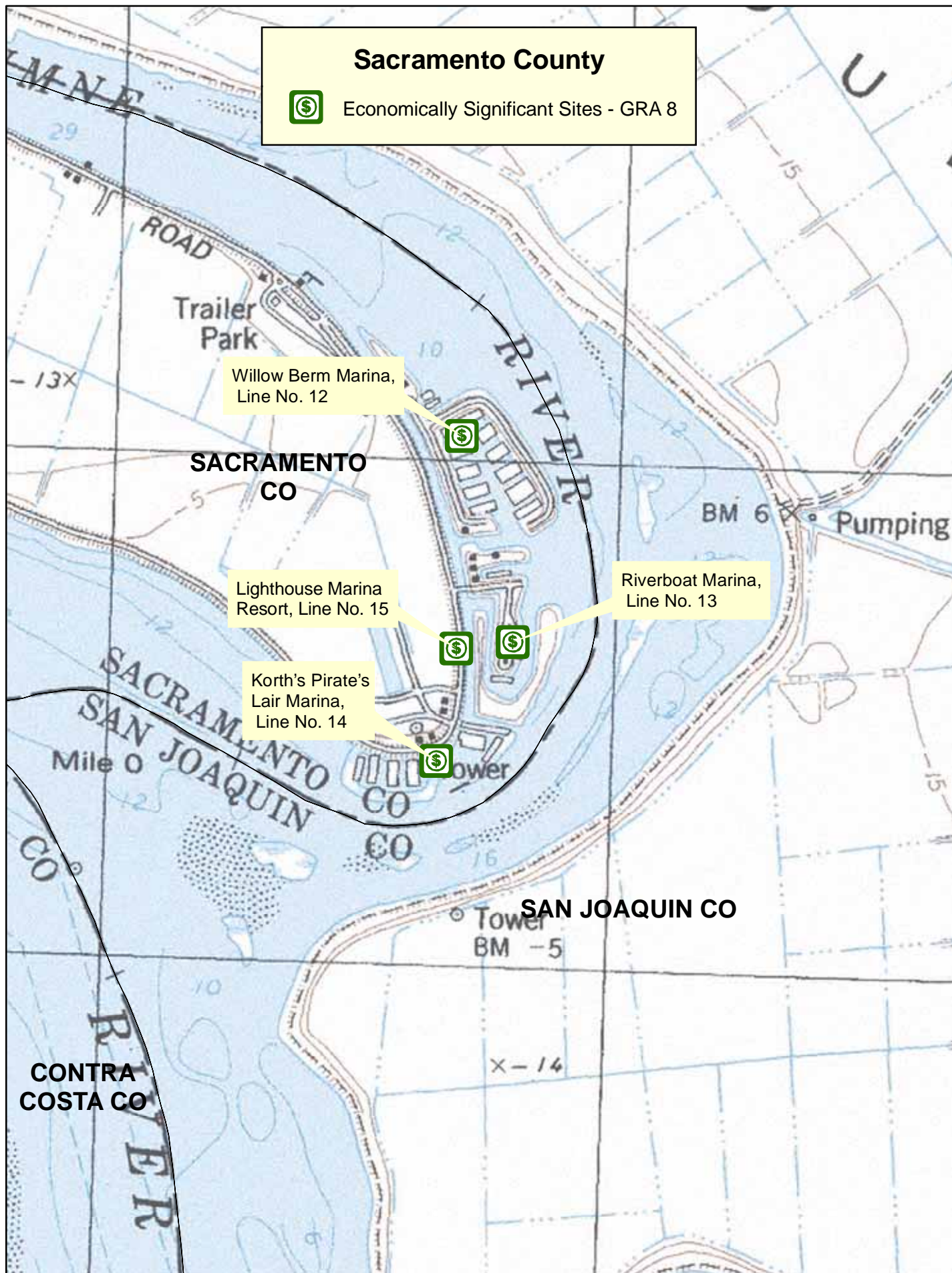


California Department of Fish and Game
Office of Spill Prevention and Response
Solano/Sacramento Co, Layout 004

Sacramento County



Economically Significant Sites - GRA 8



0 0.125 0.25 Miles

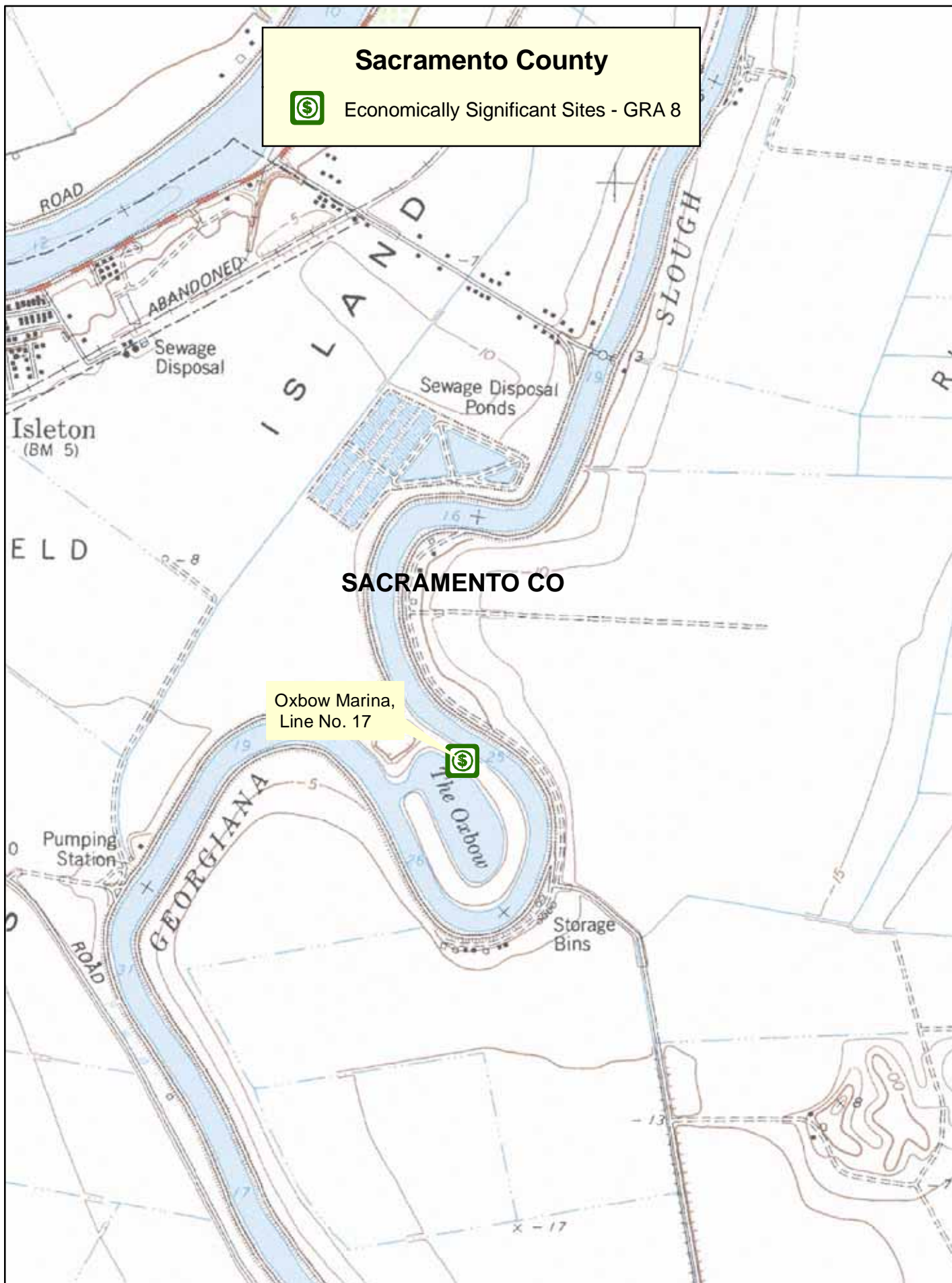


California Department of Fish and Game
Office of Spill Prevention and Response
Sacramento Co, Layout 007

Sacramento County



Economically Significant Sites - GRA 8



0 0.125 0.25 0.5 Miles



California Department of Fish and Game
Office of Spill Prevention and Response
Sacramento Co, Layout 008

Solano/Sacramento Counties



Economically Significant Sites - GRA 8

Delta Marina,
Line No. 1

Sandy Beach
Park, Line No. 2

SOLANO CO

SACRAMENTO CO

Brannan Island
SRA, Line No. 20

0 0.25 0.5 Miles



California Department of Fish and Game
Office of Spill Prevention and Response
Solano/Sacramento Co, Layout 005

Sacramento County



Economically Significant Sites - GRA 8

YOLO CO

Sacramento City
Marina, Line No. 22



SACRAMENTO CO

SACRAMENTO

0 0.25 0.5 1 Miles



California Department of Fish and Game
Office of Spill Prevention and Response
Sacramento Co, Layout 001

Sacramento/San Joaquin Counties



Economically Significant Sites - GRA 8

Boathouse Marina,
Line No. 27

Landing 63,
Line No. 24

Dagmars Landing,
Line No. 23

Walnut Grove
Marina, Line No. 26

New Hope Landing,
Line No. 29

Wimpy's Marina,
Line No. 30

SACRAMENTO CO

**SAN
JOAQUIN CO**

0 0.25 0.5 Miles

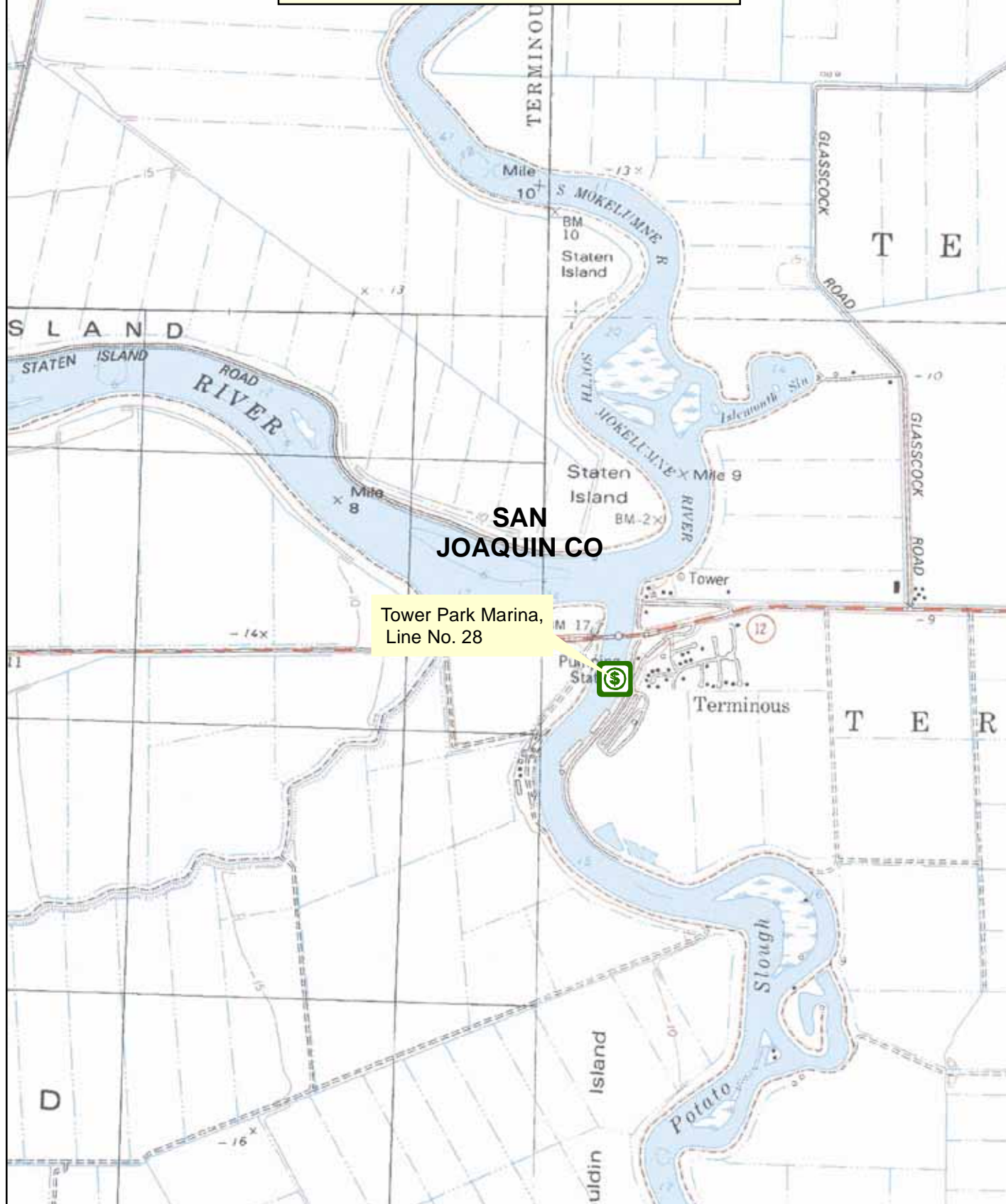


California Department of Fish and Game
Office of Spill Prevention and Response
Sacramento/San Joaquin Co, Layout 003

San Joaquin County



Economically Significant Sites - GRA 8



0 0.125 0.25 0.5 Miles



California Department of Fish and Game
Office of Spill Prevention and Response
San Joaquin Co, Layout 009

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9848.4 Shoreline Operational Divisions

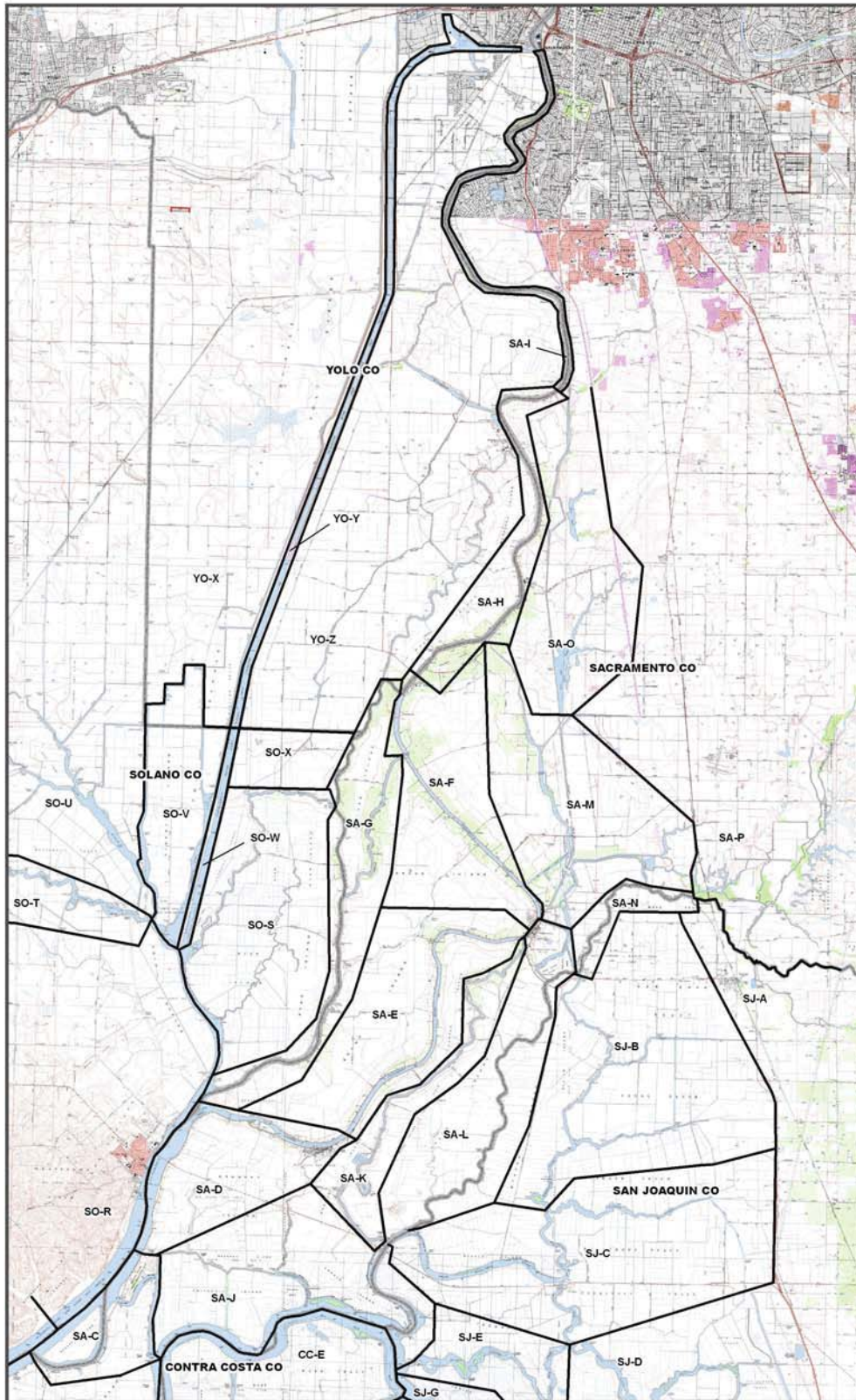
Shoreline Operational Divisions are presented in the ACP as front-loaded information to assist in rapid response planning to provide for quickly organized operational objectives and assignments along affected shorelines. The operational divisions have been developed in conjunction with the US Coast Guard, California Fish and Game OSPR, and various Oil Spill Response Organizations. Experience has demonstrated that in the earliest stages of spill response having organizational issues such as this prepared in advance is very useful to the response team.

The shoreline operational divisions are organized and named according to County boundaries. Within county domains, divisions are boundaries guided by logical geo-political features such as coastal physical characteristics and land ownership/management issues, shoreline cleanup logistical considerations, and manageable sized coastline segments (generally not longer than about ten miles although some variation occurs). Logistics, access, and manageability were driving considerations in this effort, particularly as it relates to types of cleanup operations required and problems likely to be present.

In ACP areas having more than one county, Shoreline Operational Divisions will utilize county codes followed by a single alpha character (A to Z). Shoreline operational divisions are labeled from north to south in each county. For example, the north-most operational division in Los Angeles County is "LA-A." In large bays (i.e. San Diego), the labeling will progress in a clockwise direction to accommodate changing coastline angles. Divisions can be easily subdivided (as necessary) by the Operations Section management to provide for appropriate work assignment effort.

Double digit alpha characters (AA to ZZ) will be used for all offshore operational areas and any other special operational areas needed during response.

GRA - 8 Shoreline Operational Divisions

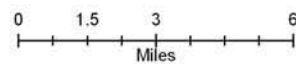


Legend

— Division Line

DRAFT

Source: C. Jochums



9848.5 Shoreline Access

Detailed shoreline access information is provided in this section to aid Planning and Operations Section managers in rapid placement of field response personnel and equipment on coastal beaches during the emergency phase of spill response. Coastal access points were examined, mapped and photographed at virtually every location along the respective ACP coastline where personnel and equipment can gain access to specific coastal segments. Used in conjunction with Environmentally Sensitive Sites and Operational Divisions, shoreline access information enables responders to be directed to the most convenient or appropriate coastal access point for their response effort. Knowing which access point to use and the nature of any access limitation will reduce time delays in finding these locations and eliminate uncertainties about the type of equipment that can gain access. Information provided in this section includes:

- a) descriptive information about the respective operational division with boundaries defined by landmark features and latitude/longitude (GPS), and a general description of recognized cultural resource issues, sensitive sites within divisions; and
- b) access point specific *Thomas Bros Maps*® page and coordinates, written directions from major streets and roads, a general site description, photographs of entry points and associated shoreline, land ownership matters, and occurrence of Sensitive Sites. Descriptions may also include the length of accessed coastal segment and limitations of access where physical constraints may be a factor.

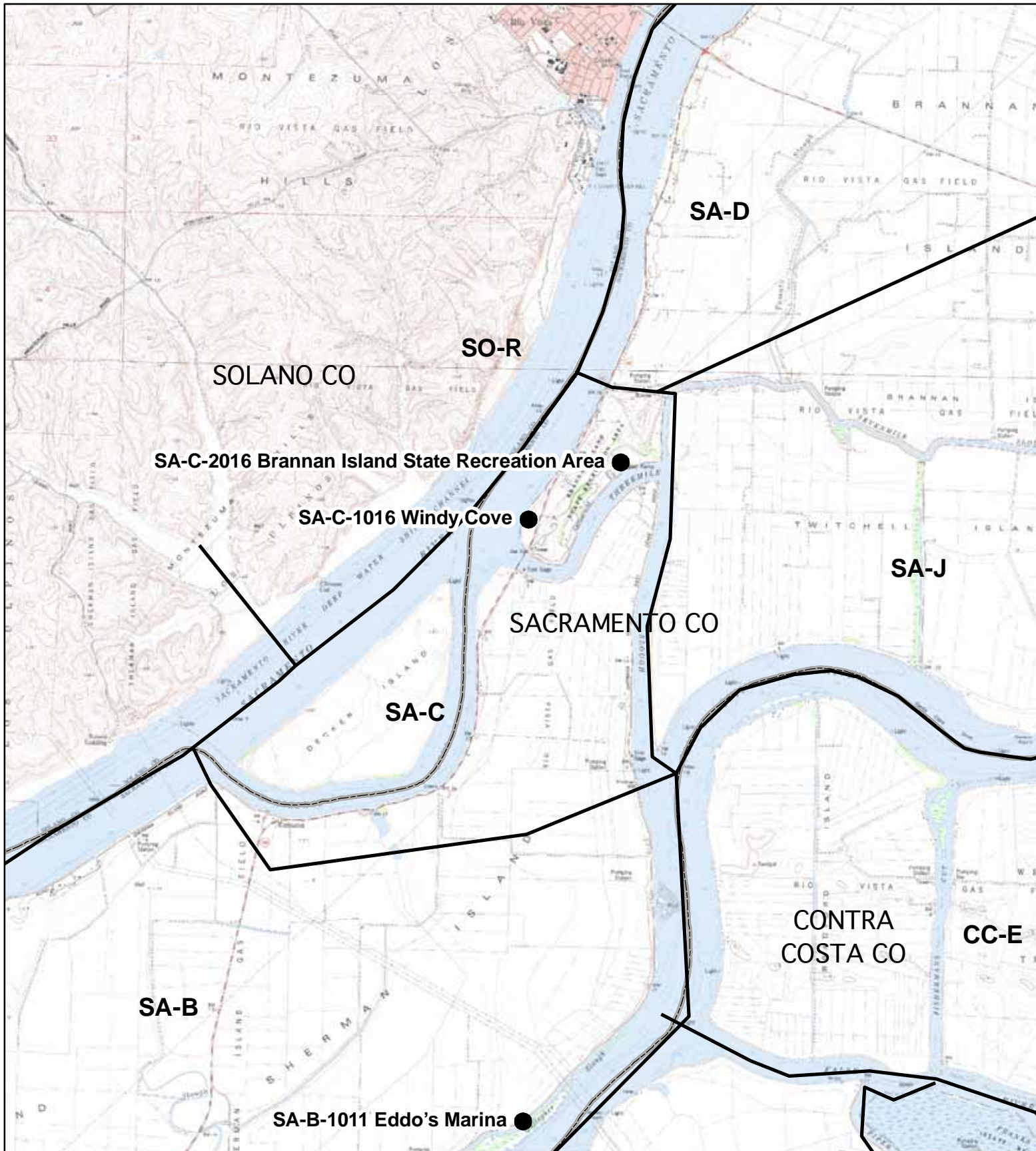
The access point identification label is a seven character alpha-numeric code describing (in order) the County (2-alpha characters) and Operational Division (1-alpha character) where the access point is located, along with a four digit number that relates to its relative physical location in the operational division. Thus, in each operational division the unit digit component will increase from north to south as access points are encountered that provide access to a discrete (partial) coastal segment of the operational division (i.e. 1110, 1115, 1120, etc.). The access point alpha-numeric code will be followed by a name the site is commonly known by (i.e. Nicholas Canyon County Beach).

Access points are labeled from north to south within an operational division. Where segments occur within an operational division they are designated by the thousands digit of the code (i.e. 1000, 2000, 3000, etc.). An access point within a segment is identified by the tenths digit (i.e. 1010, 1020, and 1030), in this example segment one has three access points. Or, there can be multiple isolated shorelines (segments) each with only one access point (i.e. 1010, 2010, 3010, etc.).

In contrast, an operational division with clear, unimpeded access for its entire length may have several access points identified by the hundreds digit (i.e. 1100, 1200, 1300, 1400). In this example the operational division (1000 – which can be thought of as one large segment) is accessible from four access points with no physical barriers preventing movement along its entire length. Responders can enter at any access point, and exit again at any other (providing the pathway will accommodate the equipment). In any given operational division shoreline ownership/management may change. The unit digit of the four digit code reflects that condition (i.e. 1108, 4016, 3011, etc). Higher numbers indicate more difficult access issues. Military lands are identified by the number 9,

Federal lands such as National Parks, National Monuments, National Wildlife Refuges, etc. are identified by the number 8, Tribal lands are identified with the number 7, State Lands such as State Parks, State Beaches, etc. are identified by the number 6, and County lands are identified by the number 5. Properties of cities are labeled with 4. The number 1 identifies private property, while 0 indicates that the ownership is not known. The numbers 3 and 2 are currently not assigned.

Sacramento County, Division C - Access Names



Legend

● Access Names

— Division Lines

Source: C. Haffner - DFG-OSPR
0 0.25 0.5 1 1.5 Miles

Operational Divisions and Access Points in GRA 8

SA Division C	County Sacramento
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Division Boundaries

North W Brannan Island Rd.	Latitude: N 38.12313	Longitude: W 121.6903
South Horseshoe Bend	Latitude: N 38.08379	Longitude: W 121.73828

Division Description

The division is made-up of the northern portion of Upper Sherman Island and all of Decker Island. Brannon Island State Recreation Area makes up the northern portion of this division.

Cultural Information

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

Sensitive Sites Within Division: [2-800-A/B](#) Sacramento River, Lower Reach
 [2-804-A](#) Sacramento River, Horseshoe Bend, Decker Island
 [2-805-B](#) Three Mile Slough - Sacramento River

Individual Access Points in: SA Division C

Access Point: SA - C - 1016 Windy Cove

Thomas Guide Page: 248 **Grid:** D2 **City:** n/a
GPS Coordinates: N 38.11014 W 121.70017 **USGS Quad:** Jersey Island

Directions:

From Hwy 160: on westside of highway, Park entrance just south of Hwy 12 and north of Three-mile Slough.

Site Description:

Shoreline made-up of rip-rap, interspersed with vegetation (mainly tules and cattails) and small pockets of medium-grain sandy beaches. Part of Brannan Island State Park. Large parking area.

Sensitive Sites: [2-804-A](#) [2-805-B](#)

Access Point: SA - C - 2016 Brannan Island State Recreation Area

Thomas Guide Page: 248 **Grid:** D2 **City:** n/a
GPS Coordinates: N 38.1159 W 121.68877 **USGS Quad:** Jersey Island

Directions:

Highway 160 to Brannan Island SRA entrance. (north of Sherman Island Road).

Site Description:

Rip-rapped shoreline interspersed with vegetation. State recreation area with camping areas and access to the Sacramento River & Delta areas.

Sensitive Sites:



SA-C-1016 Windy Cove. View across Sacramento River.

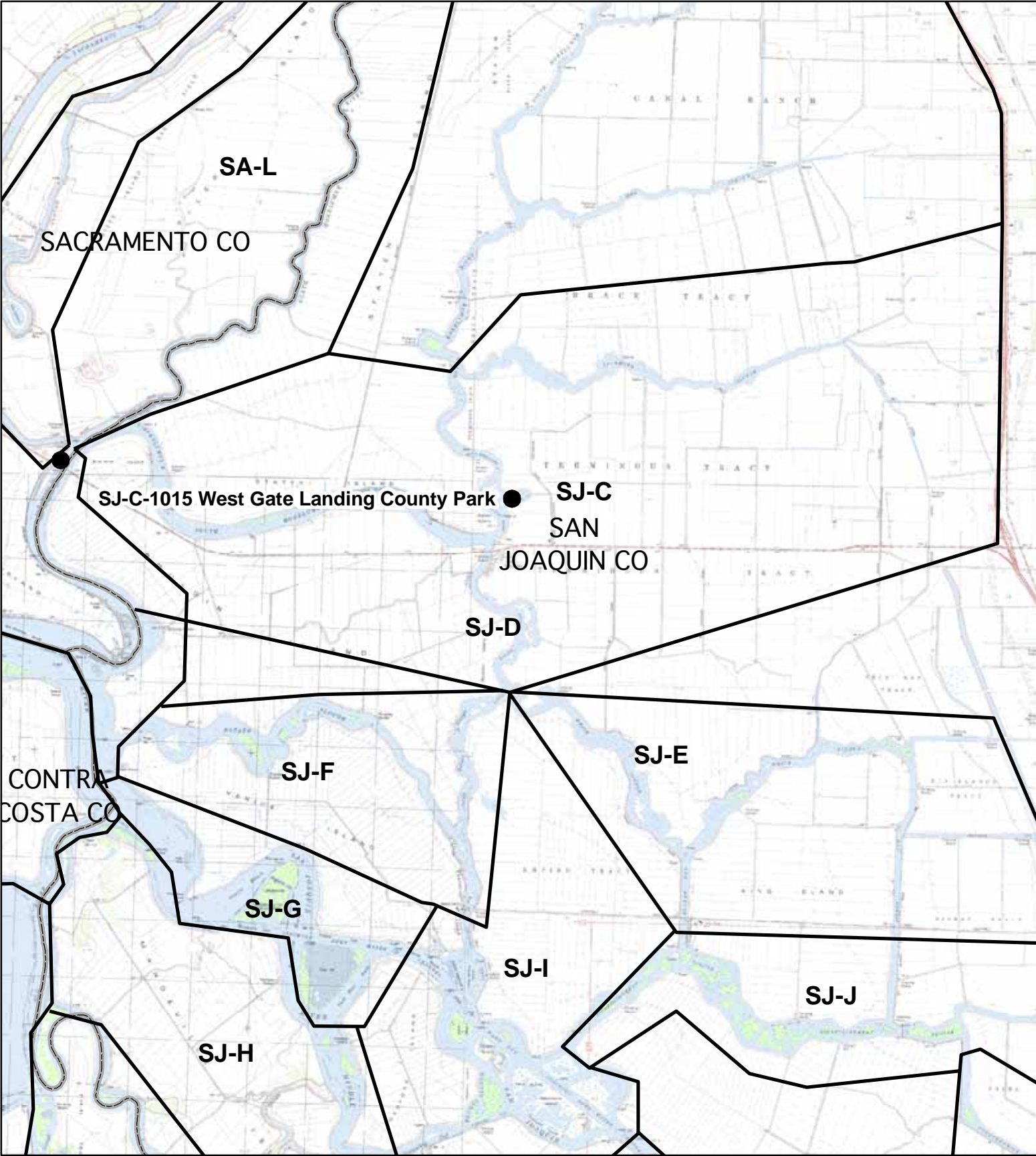


SA-C-2016 Brannan Island SRA. Looking southeast toward Three mile Slough.



SA-C-2016 Brannan Island SRA. Boat launch.

San Joaquin County, Division C - Access Names



Legend

- Access Names
- Division Lines

Source: C. Haffner - DFG-OSPR
0.25 0.5 1 1.5 Miles

Operational Divisions and Access Points in GRA 8

SJ Division C

County San Joaquin

Division Boundaries

North Woodbridge Road	Latitude: N 38.15607	Longitude: W 121.46246
South Terminus Tract	Latitude: N 38.09063	Longitude: W 121.49005

Division Description

Shoreline borders the southern portion of the South Mokelumne River. Includes portions of Brack and Terminus Tract and Boldin and Statin Islands. Rip-rapped shorelines interspersed with vegetation.

Cultural Information

Contact the California Dept of Parks and Recreation - Office of Historic Preservation (Eric Allison (916) 653-9125), and the Northwest Information Center, (Leigh Jordan, Sonoma State College (707) 664-0880) for specific information on historic or cultural resources in this area.

Sensitive Sites Within Division: [2-880-A](#) South Mokelumne River
[2-882-A](#) Sycamore Slough

Individual Access Points in: SJ Division C

Access Point: SJ - C - 1015 West Gate Landing County Park

Thomas Guide Page: 175 **Grid:** A2 **City:** n/a

GPS Coordinates: N 38.12233 W 121.49348 **USGS Quad:** Thorton

Directions:

From Hwy 12: Left on Glassrock. Proceed to park entrance.

Site Description:

Rip-rapped shoreline interspersed with vegetation (i.e. tules, sedges). Islands with riparian vegetation are just off-shore. Large parking area. Borders South Mokelumne River.

Sensitive Sites:



SJ-C-1015 West Gate Landing County Park. Looking east across So. Mokelumne River



SJ-C-1015 West Gate Landing County Park. View of shoreline looking north.

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